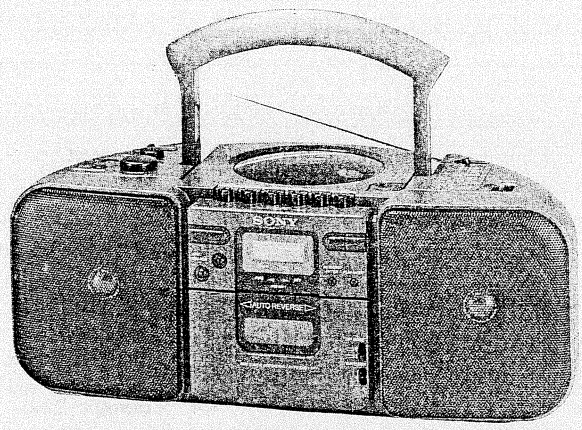
CFD-20L/30L

SERVICE MANUAL

AEP Model
UK Model
CFD-20L
AEP Model
CFD-30L



This photo is CFD-30L and black type.

Model Name Using Similar Mechanism	CD Section	CFD-58L
	Tape Section	NEW
Optical Device Type		KSM-2101BAM
Tape Transport Mechanism Type		MF-CFD-20
		MF-CFD-30

SPECIFICATIONS

CD player section

System: Compact disc digital audio system
Laser diode properties: Material: GaAlAs
Wavelength: 780 nm
Emission duration: Continuous
Laser output: Less than 44.6μW
This output is the value measured at a distance of about 200 mm from the objective lens surface on the optical pick-up block.
Frequency response: 20–20,000 Hz ±2 dB
Wow and flutter: Below measurable limit

Radio section

Frequency range

	FM	MW	LW	SW
AEP, UK model	87.6–107 MHz	531–1602 kHz	153–279 kHz	5.95–18 MHz
Italian model	87.5–108 MHz	526.5–1606.5 kHz	148.5–283.5 kHz	
Intermediate frequency	10.7 MHz	455 kHz		

Antennas: FM/SW : Telescopic antenna
MW/LW: Built-in ferrite bar antenna

Tape recorder section and general

Recording system: 4-track 2-channel stereo
Frequency response: 70–10,000 Hz (with TYPE I <NORMAL> cassette)
Speaker: Full-range speakers: 10 cm dia., cone type
Maximum power output: 5W (2.5 W + 2.5 W)
Input: Mixing microphone input jack (minijack)
Sensitivity 2.5 mV
For low impedance microphone
Output: Headphones jack (stereo minijack)
For 16–68 ohms impedance headphones

Power requirements

AEP model	220–230 V AC, 50 Hz
UK model	240 V AC, 50 Hz
	DC 9V, six R20 (size D) batteries

Power consumption

UK model	AC 28 W
AEP model	AC 25 W

—Continued next page—

MICROFILM

CD RADIO CASSETTE-CORDER

SONY®

Battery life (hours)

	FM recording	Tape Playing	CD playing
Sony SUM-1 (NS)	approx. 9	approx. 6	approx. 2.5
Sony Alkaline AM 1 (N)	approx. 16.5	approx. 11	approx. 4.5

Dimensions Approx. 410 × 170 × 235 mm (w/h/d) (Approx. 16 1/4 × 6 3/4 × 9 3/8 inches) incl. projecting parts and controls

Weight Approx. 4.2 kg incl. batteries (Approx. 9 lb 5 oz).

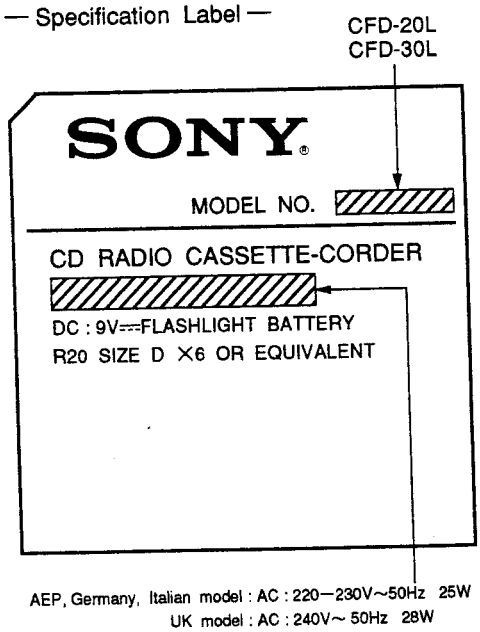
Supplied accessory AC power cord (1)

Design and specifications subject to change without notice.

Note
This appliance conforms with EEC Directive 87/308/EEC regarding interference suppression.

MODEL IDENTIFICATION

— Specification Label —



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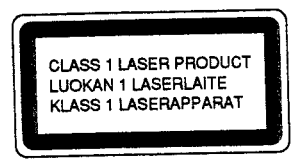


This Compact Disc player is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT label is located on the rear exterior.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

SECTION 1
SERVICING NOTES

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

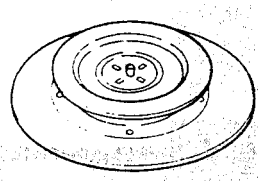
NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe more than 25 cm away from the objective lens.

CHUCK PLATE JIG ON REPAIRING

On repairing CD section, playing a disc without the CD lid, use Chuck Plate Jig.

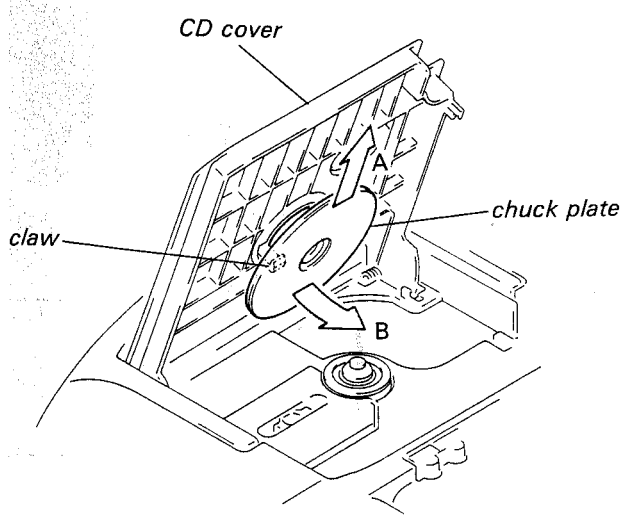
- Code number of Chuck Plate Jig: X-4918-255-1



Removing the chuck plate

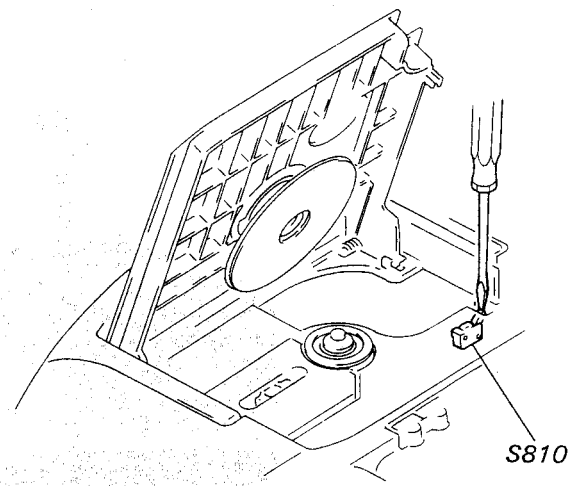
The chuck plate of this unit can be removed and used as a chuck plate jig.

1. Pull the chuck plate in the direction A.
2. Press the claw of the CD cover, and remove the chuck plate in direction B.



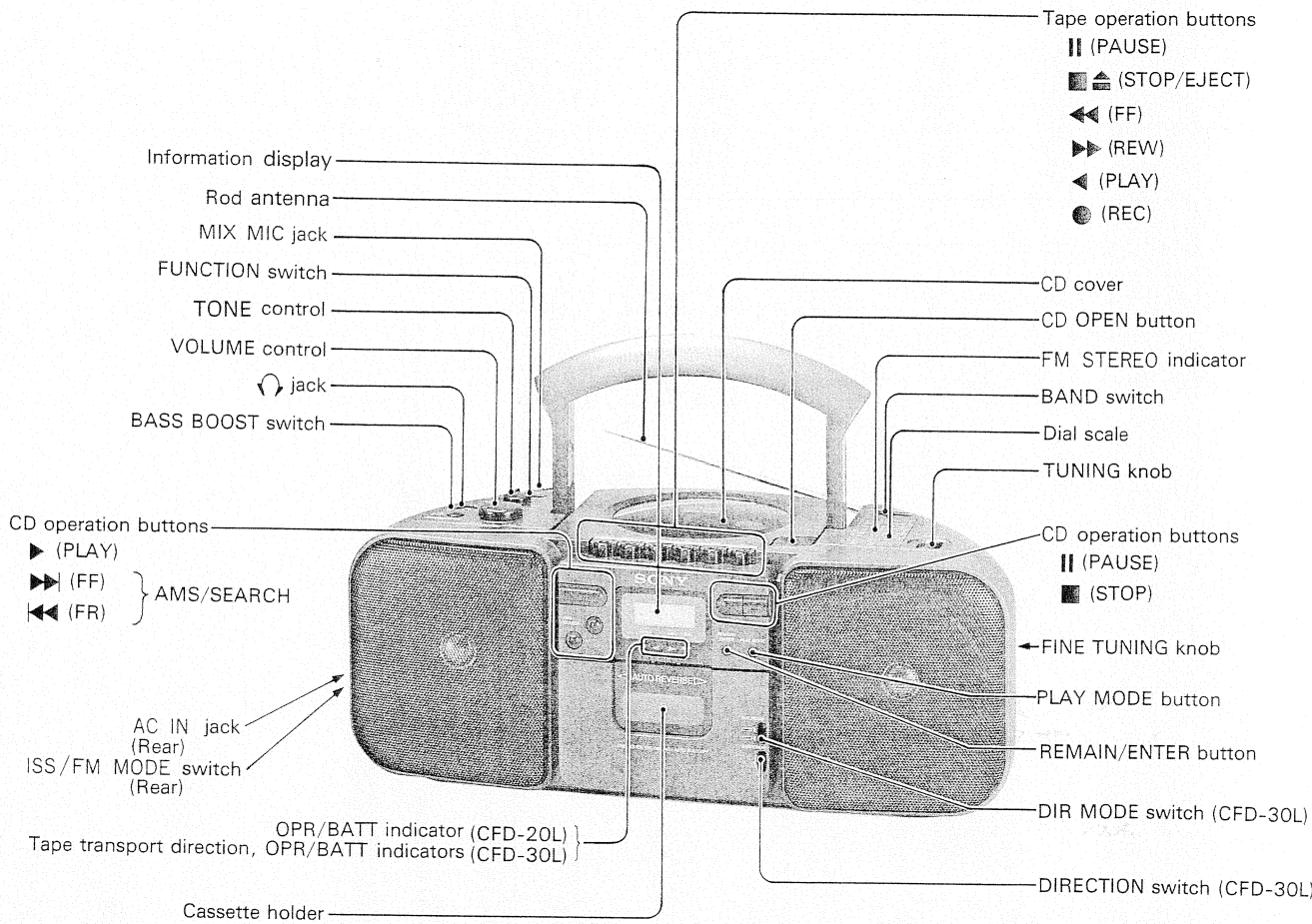
LASER DIODE AND FOCUS SEARCH OPERATION CHECK

1. Make Function switch to CD position with no disc inserted.
2. Open the lid for CD.
3. Turn on S810 as following figure.
4. Press ▶ key.
5. Confirm the laser diode emission while observing the objecting lens. When there is no emission, Auto Power Control circuit or Optical Pick-up is broken.
   Objective lens moves up and down once for the focus serarch.

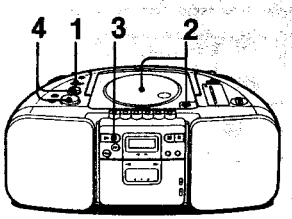


SECTION 2
GENERAL

LOCATION OF CONTROLS

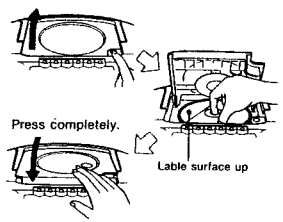


Playing a Disc — An 8cm (3 inch) CD can be played without an adaptor.



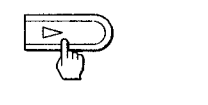
1

2 Place a disc.

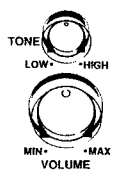


The number of selections in the disc and the total playing time will appear in the display window.

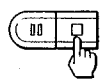
3



4



To stop play



To turn off the unit
Set FUNCTION to TAPE CD/RADIO OFF.

To pause: Press ⏸.
To resume play, press ⏸ again.
To eject a disc: Press CD OPEN.

Do not press CD OPEN during playing
Otherwise, the disc will be damaged. Be sure to stop the disc first.

To reinforce the bass sound: Press BASS BOOST (BASS ON).

While listening to the tape or radio
You can also adjust the sound with BASS BOOST.

Note on BASS BOOST
BASS BOOST is most effective around the third position from MIN of the volume range. Even if you raise volume more, the BASS BOOST effect will be negligible.

Notes on compact discs

This way

Handle the disc by its edge.

Not this way

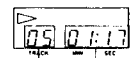
Do not touch the surface.

Not this way

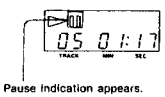
Do not stick paper or tape nor write anything on the surface.

Information Display

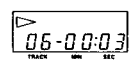
During playing



While CD player is set in pause

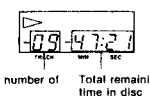


Between selections
Remaining time until the next selection is displayed.



To display the remaining time in the disc being played
Press REMAIN/ENTER.

For normal display, press REMAIN/ENTER again.



Note
During shuffle or program play, remaining time of the disc is not displayed even if REMAIN/ENTER is pressed.

Locating a Particular Portion

Locating a particular selection (AMS*)	To locate the beginning of the current selection AMS/SEARCH Press once. To locate the next selection AMS/SEARCH Press once.
Locating a particular point in a selection (SEARCH)	To go back at high speed AMS/SEARCH Keep pressed. To go ahead at high speed AMS/SEARCH Keep pressed.

*AMS is the abbreviation of Automatic Music Sensor.

Notes on the AMS function
- The player pauses at the beginning of the located selection when you press ⏮ or ⏭ in pause mode.
- If you press ⏮ repeatedly, the player locates the previous selections.
  If you press ⏭ repeatedly, the player locates the selections ahead and stops at the last selection.

This section is extracted from instruction manual.

Selecting Various Playing Modes

Each time PLAY MODE is pressed, play mode changes as follows. To stop the disc, press □.

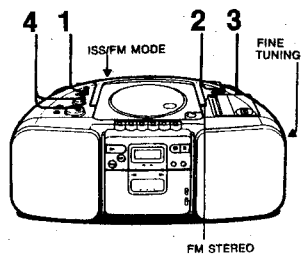
Operate while listening to the disc. However, select INTRO scan play when disc is not being played.

Play mode	Button to be pressed	Front display window
Scanning all the selections — **INTRO-scan play** Beginnings of selections are played for 10 seconds successively.	❶ Press PLAY MODE once when disc is not being played. PLAY MODE ❷ Press ▷. Scanning starts from the first selection.	INTRO 16 55:32 INTRO 01 00:01
Repeating one selection — **REPEAT 1**	PLAY MODE Press PLAY MODE once more while listening to the desired selection. Press ⏮/⏭ for another selection.	REPEAT 1 05 01:17
Repeating all the selections — **REPEAT ALL**	PLAY MODE Press PLAY MODE once more. When play reaches the end of the disc, it starts again from the first selection.	REPEAT ALL 05 01:17
Playing repeatedly in a random order — **REPEAT SHUFFLE**	PLAY MODE Press PLAY MODE once more.	SHUFFLE 05 01:17
Playing in the desired order repeatedly — **REPEAT PGM (program)**	❶ Press PLAY MODE once more. PLAY MODE ❷ Choose the desired selection with ⏮ or ⏭. AMS/SEARCH ❸ Press REMAIN/ENTER. REMAIN/ENTER The selection is stored. ❹ Repeat steps ❷ and ❸ (Up to 16 selections) ❺ Press ▷. MEM disappears and play starts.	REPEAT PGM 00 01 05 07 5th selection Program 1 00 02 Program 2 05 00:01
Playing in the desired order once — **PGM (program)**	❶ Press PLAY MODE once more. PLAY MODE ❷ Repeat steps ❷ to ❺ above.	PGM 00 01
To return to normal play, press PLAY MODE once more.		

If another selection is stored after 16 selections have been stored
The first selection will be cleared and the new one will be stored in its place as the first selection.

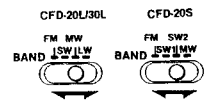
When you open the disc holder or you press □
All programmed selections are cleared.

Listening to the Radio



1

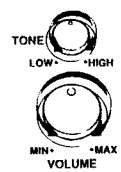
2 Select the desired band.



3 Tune in.

For better SW reception, use FINE TUNING.

4



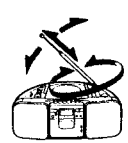
To turn off the radio

To receive an FM stereo program (CFD-20L/30L only)
Set the ISS/FM MODE switch on the rear panel to STEREO.
When an FM stereo program is tuned in, the FM STEREO indicator lights up. If the received FM stereo signal is too weak, the reception becomes monaural, and the FM STEREO indicator will go out.

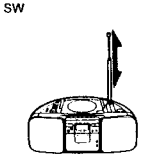
When an FM stereo program is noisy (CFD-20L/30L only)
Set the ISS/FM MODE switch to MONO. You can hear the monaural program with less noise.

For improved reception

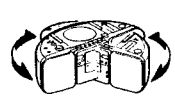
FM



SW



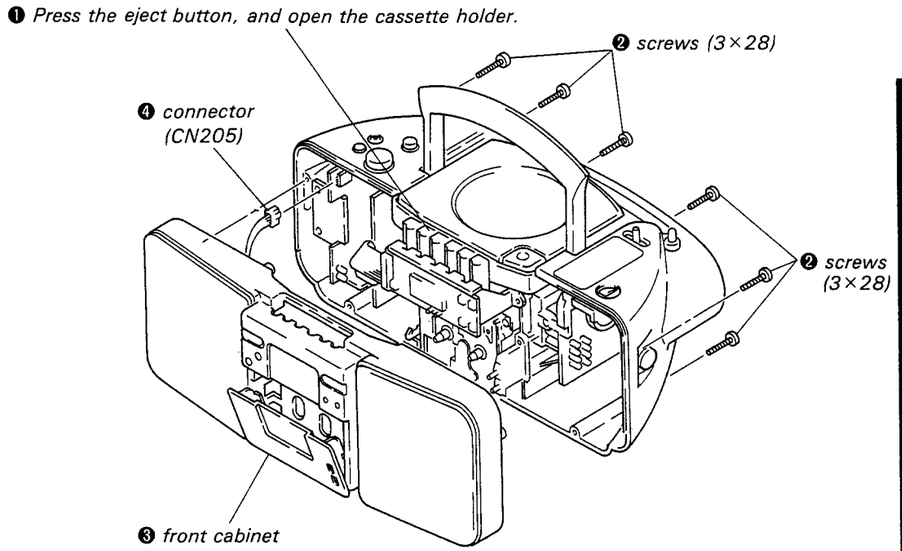
LW
MW



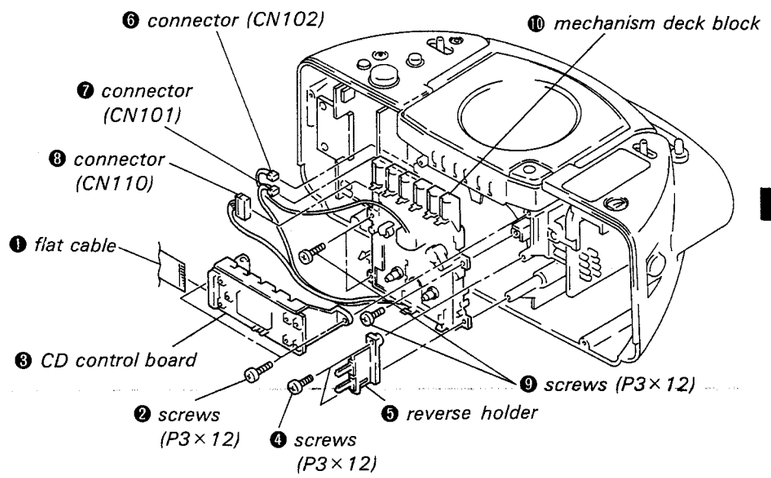
SECTION 3
DISASSEMBLY

NOTE: Follow the disassembly procedure in the numerical order given.

FRONT CABINET REMOVAL

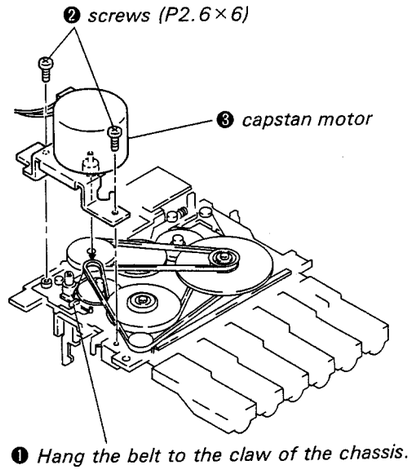


MECHANISM DECK BLOCK REMOVAL

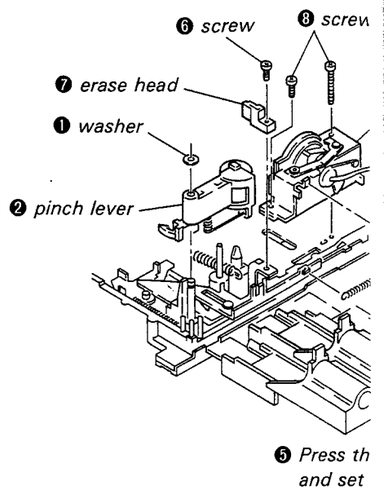


CFD-30L

CAPSTAN MOTOR REMOVAL

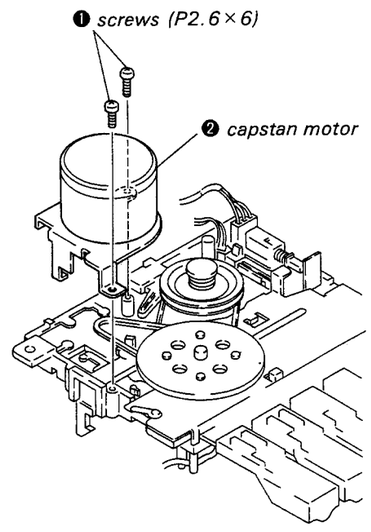


HEAD BLOCK AND PINCH LEVER

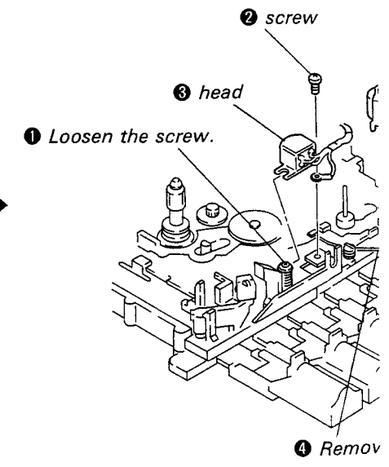


CFD-20L

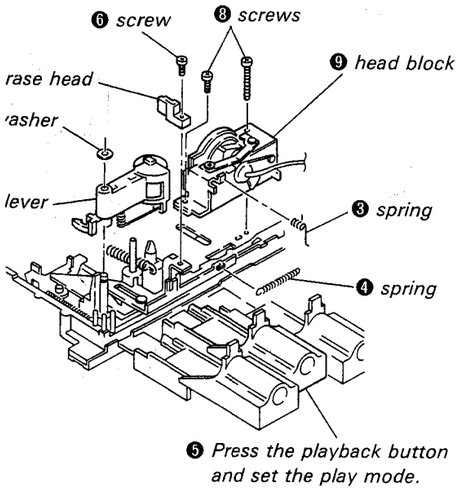
CAPSTAN MOTOR REMOVAL



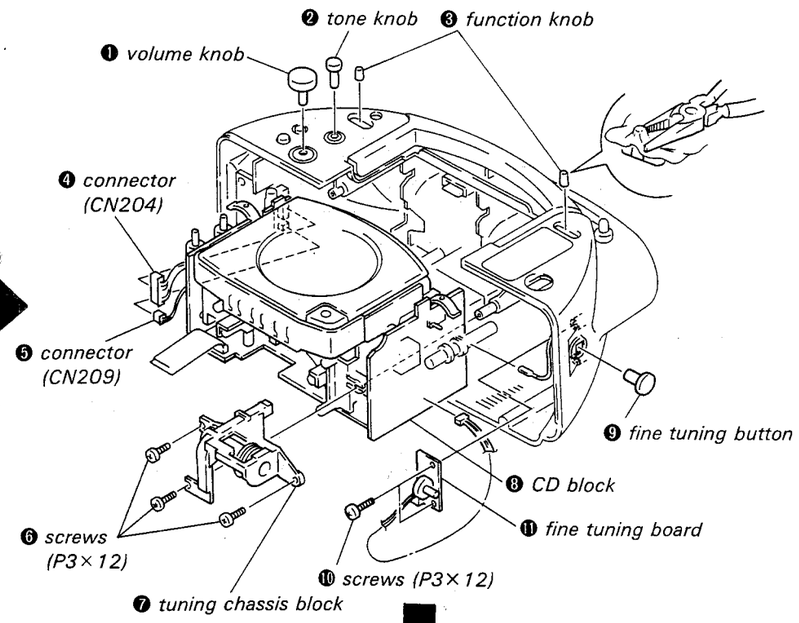
HEAD BLOCK AND PINCH LEVEI



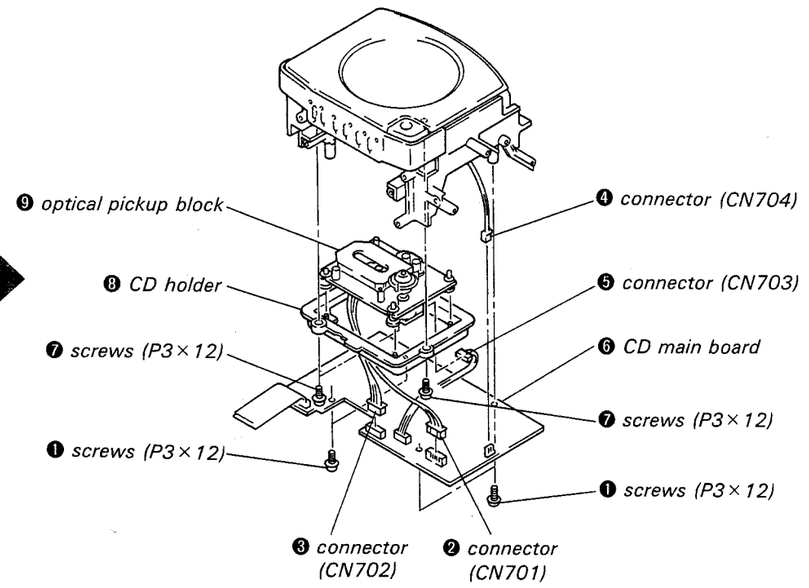
ɔCK AND PINCH LEVER REMOVAL



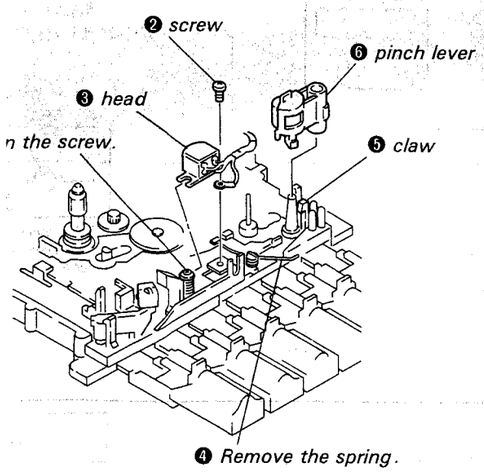
CD BLOCK REMOVAL



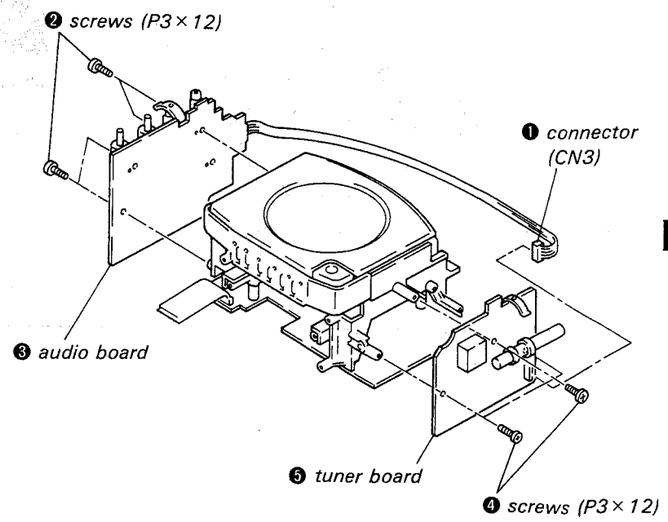
OPTICAL PICKUP BLOCK REMOVAL



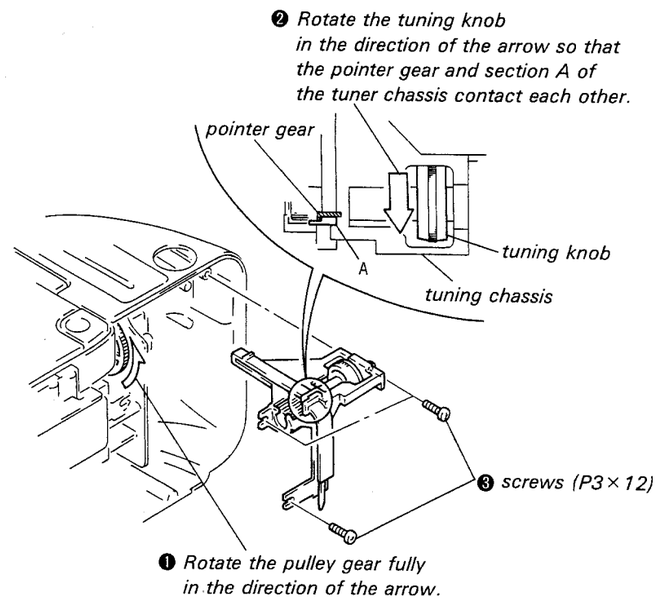
OCK AND PINCH LEVER REMOVAL



AUDIO BOARD AND TUNER BOARD REMOVAL



DIAL POINTER SETTING


❷ Rotate the tuning knob in the direction of the arrow so that the pointer gear and section A of the tuner chassis contact each other.
pointer gear
A
tuning knob
tuning chassis
❸ screws (P3×12)
❶ Rotate the pulley gear fully in the direction of the arrow.

SECTION 4
MECHANICAL ADJUSTMENT

PRECAUTION

1. Clean the following parts with a denatured-alcohol-moistened swab :
   record/playback head　　pinch roller
   erase head　　rubber belts
   capstan　　idlers
2. Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head demagnetizer close to the erase head.)
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be perfomed with the rated power supply voltage unless otherwise noted.
6. Power supply voltage : 9V dc.

Torque Measurement

Torque	Torque meter	Meter reading
Forward	CQ-102C	30—75g · cm (0.41—1.04 oz · inch)
Forward back tension	CQ-102C	1.5—6g · cm (0.020—0.083 oz · inch)
Reverse	CQ-102RC	30—75g · cm (0.41—1.04 oz · inch)
Reverse back tension	CQ-102RC	1.5—6g · cm (0.020—0.083 oz · inch)
Fast Forward	CQ-201B	60—130g · cm (0.83—1.80 oz · inch)
Rewind	CQ-201B	60—130g · cm (0.83—1.80 oz · inch)

Tape Tension Measurement (CFD-20L)

Mode	Meter	Meter reading
Forward	CQ-403A	more than 150g (more than 5.28 oz)

Tape Tension Measurement (CFD-30L)

Mode	Meter	Meter reading
Forward	CQ-403A	more than 90g (more than 3.16 oz)
Reverse	CQ-403R	

SECTION 5
ELECTRICAL ADJUSTMENT

5-1. TAPE RECORDER SECTION

Note : The adjustment should be performed in the order given in the service manual. As a rule, adjustment about playback should be performed before adjustment about recording. The adjustments should be performed for both L-CH and R-CH.

Standard Output Level

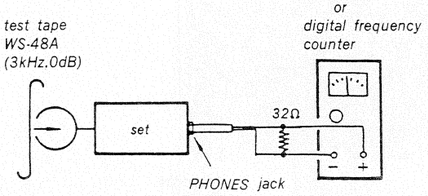
Output terminal	PHONES
load impedance	32Ω
output signal level	0.25V (−10dB)
	0dB = 0.775V

Test Tape

Type	Signal	Used for
WS-48A	3kHz, 0dB	tape speed adjustment
P-4-A063	6.3kHz, −10dB	azimuth adjustment

Tape Speed Adjustment

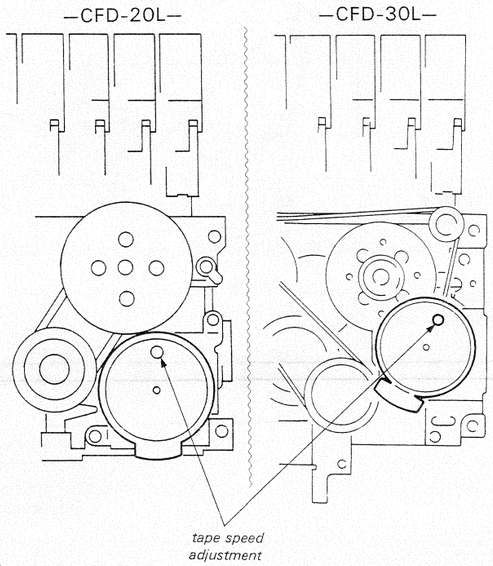
Procedure :
Mode : playback



Adjustment Value :

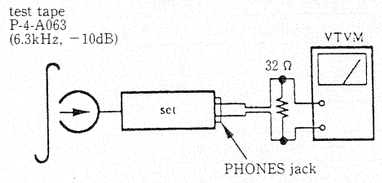
Speed checker	Digital frequency counter
−1.5% to +1.5%	2,955 to 3,045Hz

Adjustment Location : Mechanism Deck block

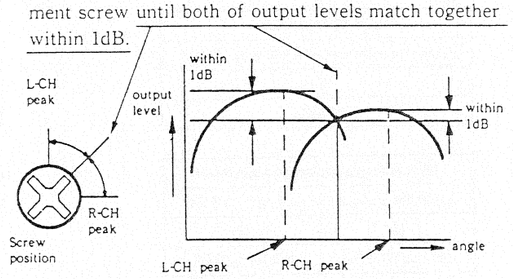


Record/Playback Head Azimuth Adjustment

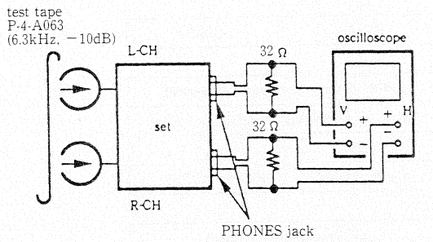
Procedure :
1. Mode: FWD playback



2. Turn the adjustment screw for the maximum output levels. If these levels do not match, turn the adjustment screw until both of output levels match together within 1dB.



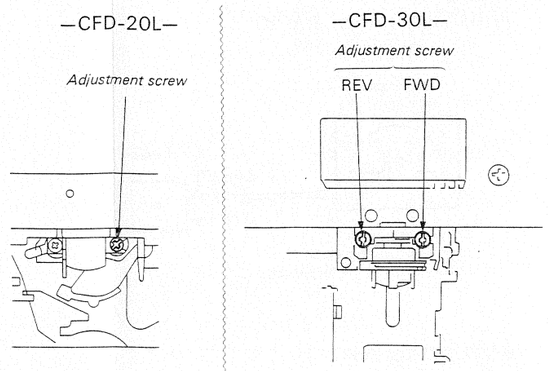
3. Phase Check
   Mode: playback



Screen pattern				
in phase	45°	90°	135°	180°
good			wrong	

4. Set in the REV mode and repeat the step 1-3. (CFD-30)
5. After the adjustment, lock the screws with locking compound.

Adjustment Location : Record/playback head

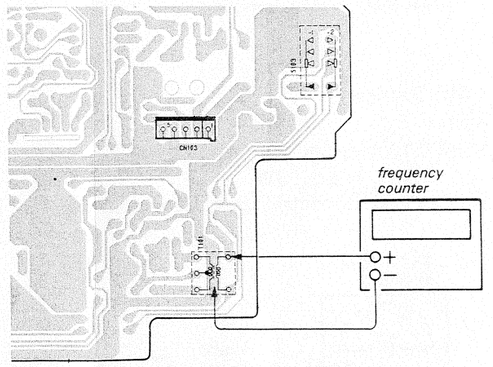


Record Bias Adjustment

Procedure :
Mode : REC
ISS/FM MODE switch : 2/STEREO

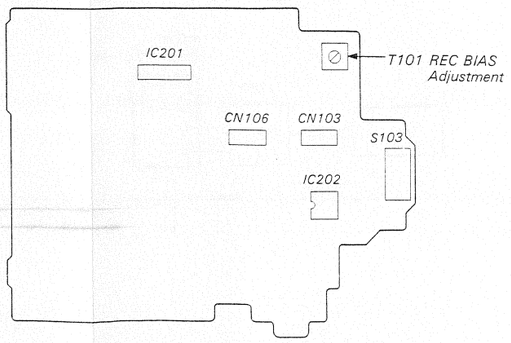
Procedure :
1. Connect the frequency counter as shown below.
2. Adjust with T101 so that the reading on the frequency counter becomes 76kHz.

【AUDIO BOARD】(CONDUCTOR SIDE)



Adjustment Location :

【AUDIO BOARD】(COMPONENT SIDE)



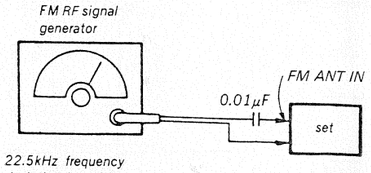
5-2. RADI
• FM Sectio
Setting :
FUNCTION
BAND
FM RF
genera
22.5kHz fr
deviation b
output leve
• MW/LW S
Setting :
FUNCTION
BAND
AM R
gener
30% amp
modulatio
400Hz si
output le
• SW Sect
Setting :
FUNCTIO
BAN
FINE TU
AM R
genera
30%
modula
400Hz
set

5-2. RADIO SECTION

• FM Section

Setting :

FUNCTION switch : RADIO
BAND switch : FM

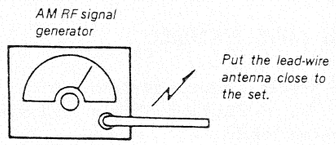


22.5kHz frequency deviation by 400Hz signal output level : as low as possible

• MW/LW Section

Setting :

FUNCTION switch : RADIO
BAND switch : MW/LW

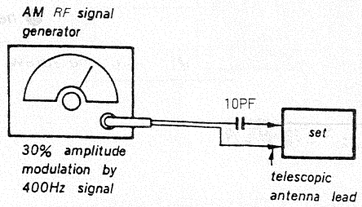


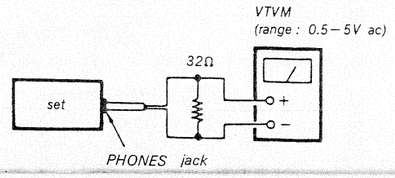
30% amplitude modulation by 400Hz signal output level : as low as possible

• SW Section

Setting :

FUNCTION switch : RADIO
BAND switch : SW
FINE TUNING control : mechanical mid





• Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

( ) : Italian model

FM Frequency Coverage Adjustment	
Adjust for a maximum reading on VTVM.	
L2	CT2
87.35MHz	108.1MHz (108.25MHz)

FM Tracking Adjustment	
Adjust for a maximum reading on VTVM.	
L1	CT1
87.35MHz	108.1MHz (108.25MHz)

AW IF Adjustment
Adjust for a maximum reading on VTVM.
T1
455kHz

MW Frequency Coverage Adjustment	
Adjust for a maximum reading on VTVM.	
L5	CT4
520kHz (516kHz)	1680kHz (1630kHz)

MW Tracking Adjustment	
Adjust for a maximum reading on VTVM.	
L10	CT3
600kHz	1400kHz

LW Frequency Coverage Adjustment	
Adjust for a maximum reading on VTVM.	
L7	CT7
145kHz (140kHz)	300kHz (293kHz)

LW Tracking Adjustment	
Adjust for a maximum reading on VTVM.	
L3	CT10
160kHz	260kHz

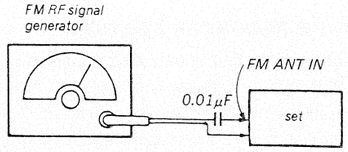
SW Frequency Coverage Adjustment	
Adjust for a maximum reading on VTVM.	
L6	CT6
5.8MHz	18.4MHz

SW Tracking Adjustment	
Adjust for a maximum reading on VTVM.	
L8	CT8
5.8MHz	18.4MHz

Adjustment Location see page 14.

FM VCO Adjustment

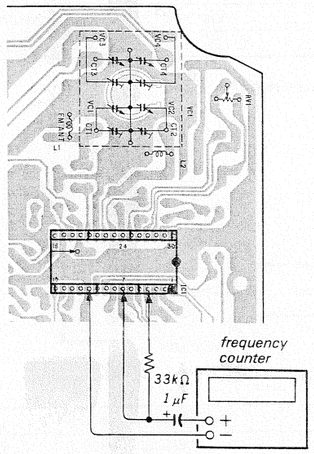
Procedure :



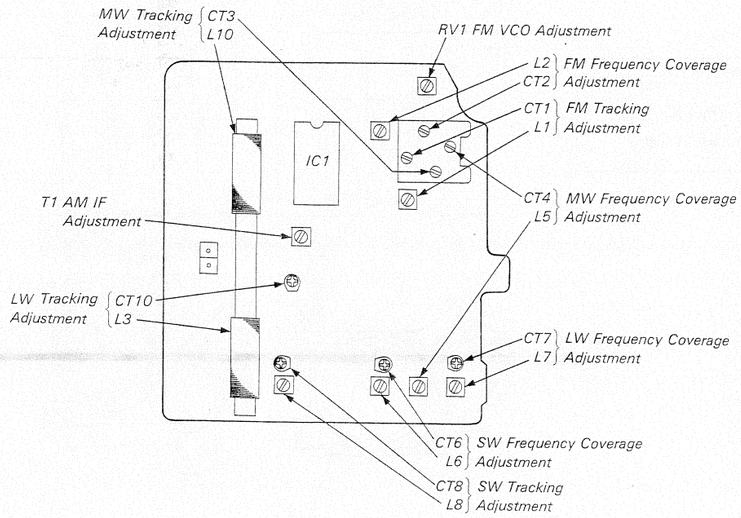
Carrier frequency : 98MHz
Modulation : no modulation
Output level : 0.1V (100dB)

1. Connect the frequency counter as shown below.
2. Tune the set to 98MHz.
3. Adjust RV1 for 76kHz±0.3kHz reading on the frequency counter.

【TUNER BOARD】 (conductor side)



Adjustment Location : TUNER board (component side)


MW Tracking Adjustment CT3 L10
RV1 FM VCO Adjustment
L2 CT2 FM Frequency Coverage Adjustment
CT1 L1 FM Tracking Adjustment
IC1
CT4 L5 MW Frequency Coverage Adjustment
T1 AM IF Adjustment
LW Tracking Adjustment CT10 L3
CT7 L7 LW Frequency Coverage Adjustment
CT6 L6 SW Frequency Coverage Adjustment
CT8 L8 SW Tracking Adjustment

5-3. CD SECTION

Notes on Adjustment

1. Perform adjustment in test mode.
   After adjustment, be sure to release test mode.
2. Perform adjustments in the order given.
3. Use the disc (YEDS-18, Part No. 3-702-101-01) only when so indicated.

Before Adjustment

Put the set into test mode and perform the following checks.
Repair if there are any problems.

- **Sled Motor Check**

1. Press ▶ key, then press ■ key.
2. Press ▶▶| , |◀◀ keys and comfirm that the FOP moves smoothly from the innermost to outermost circumference and back smoothly and with no catching or abnormal noises. (Cancellation of BTL mute.)
   ▶▶| : FOP moves to the outer circumference
   |◀◀ : FOP moves to the inner ciecumference

- **Focus Search Check**

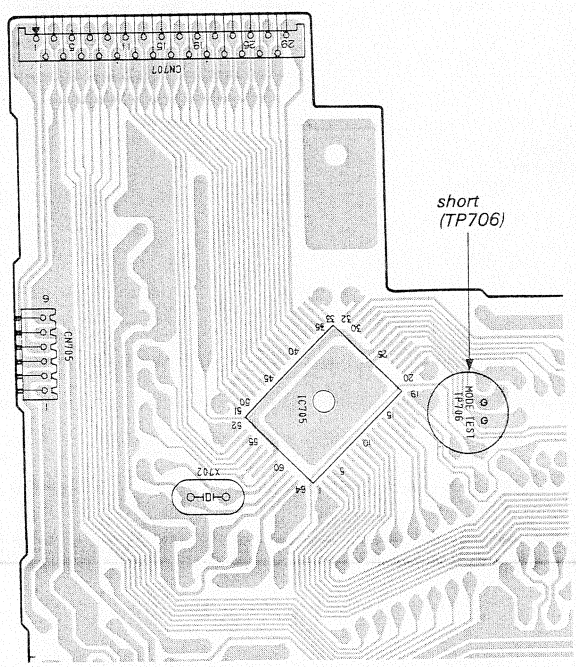
1. Press ▶ key. (Focus search operation is performed continuously.)
2. Look at the FOP objective lens and confirm that it moves up and down smoothly, with no catching or abnormal noises.
3. Press ■ key.
   Confirm that focus search operation stops. If it does not, press ■ key again longer.

Note : When the malfunction is occured by mis-passing other keys, turn off the power and check again from making the test mode.

How to Put the Set into Test Mode

1. Short-circuit follwing portion (TP706) on the CD MAIN board.
2. Turn the POWER on.
3. Release the short.

【CD MAIN BOARD】 (conductor side)

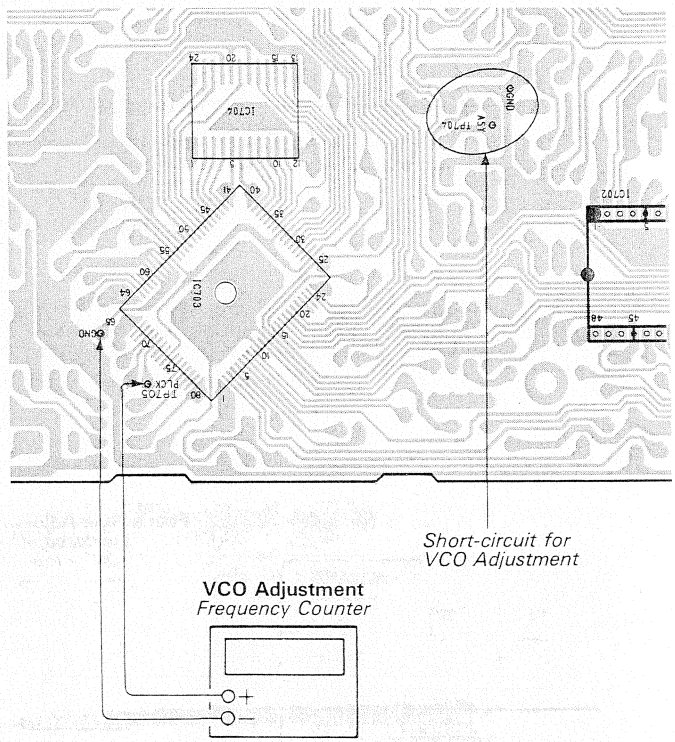


VCO Adjustment

1. Short-circuit the TP704 (ASY) and GND on the CD MAIN board.
2. Connect the frequency counter to the TP705 (PLCK).
3. Adjust with RV704 so that the reading on the frequency counter becomes 4.3218 MHz.
4. Release the short.

Adjustment Location : CD MAIN board (See page 16)

【CD MAIN BOARD】 (conductor side)

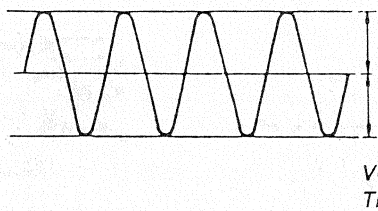


E. F Balance Adjustment

This adjustment is to be done when the optical block is replaced.

Adjustment Procedure:

1. Connect the oscilloscope between IC701 pins ⑳ and ⑨.
2. Put the set into test mode. (See page 15)
3. Press the ▶▶| and |◀◀ keys to move the FOP to the center.
4. Insert disc (YEDS-18) and press ▶ key.
5. Adjust RV701 so that the oscilloscope traverse waveform is symmetrical, as shown in the figure below.
6. Release test mode after adjustment is completed.



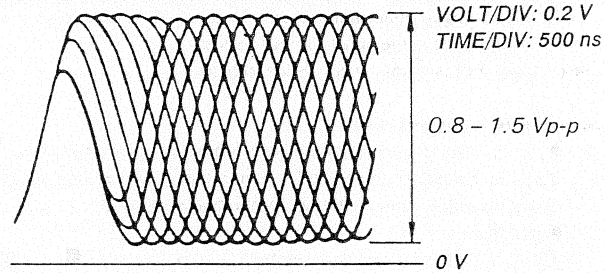
Focus Bias Adjustment

This adjustment is to be done when the optical block replaced.

Adjustment Procedure:

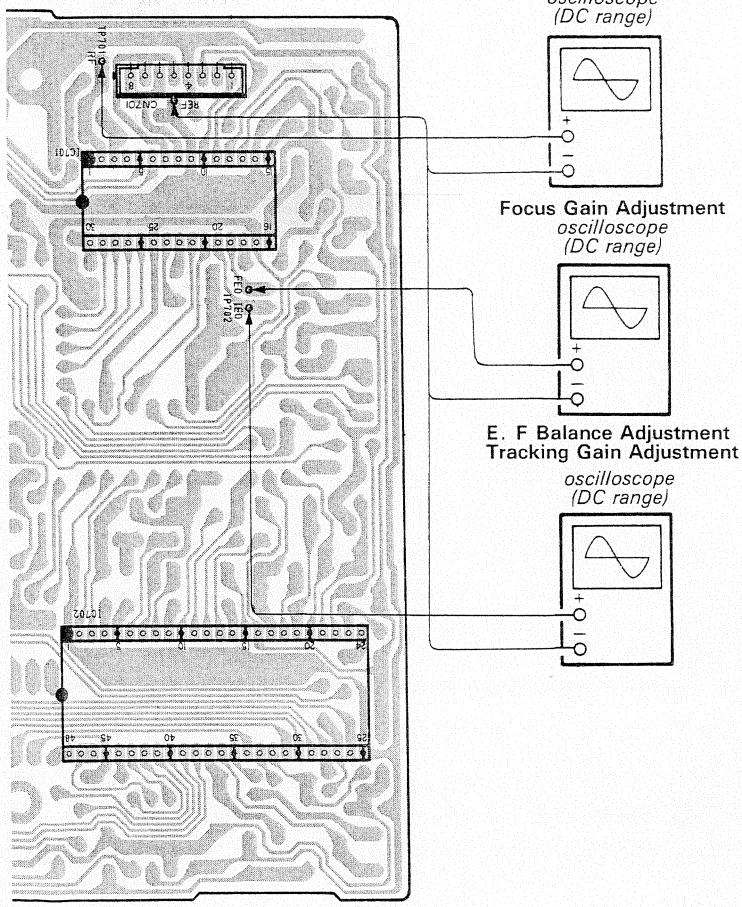
1. Connect the oscilloscope between IC701 pins ② and ⑨.
2. Put the set into test mode. (See page 15)
3. Press the ▶▶| and |◀◀ keys to move the FOP to the center. (Move the FOP to the music area on the disc to enable easy visibility of the eye pattern.)
4. Insert disc (YEDS-18) and press ▶ key.
5. Adjust RV705 so that the oscilloscope waveform os as shown in the figure below (eye pattern).
   A good eye pattern means that the diamond shape (◇) in the center of the waveform can be clearly distinguished.
6. Release test mode after adjustment is completed.

- RF signal reference waveform (eye pattern)

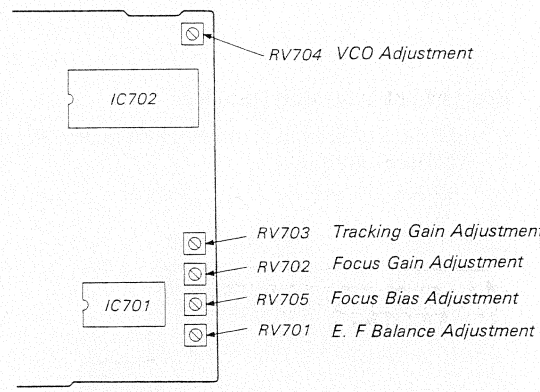


When observing the eye pattern, set the oscilloscope for AC range and raise vertical sensivity.

【CD MAIN BOARD】 (conductor side)



Adjustment Location : CD MAIN board (component side)



5-4. REFERENCE

Focus/Tracking Gain Adjustment

A frequency response analyzer is necessary in order to perform this adjustment exactly.
However, this gain has a margin, so even if it is slightly off, there is no problem. Therefore, do not perform this adjustment.
Focus/tracking gain determines the pick-up follow-up (vertical and horizontal) relative to mechanical noise and mechanical shock when the 2-axis device operate.
However, as these reciprocate, the adjustment is at the point where both are satisfied.

- When gain is raised, the noise when the 2-axis device operates increases.
- When gain is lowered, it is more susceptible to mechanical shock and skipping occurs more easily.
- When gain adjustment is off, the symptoms below appear.

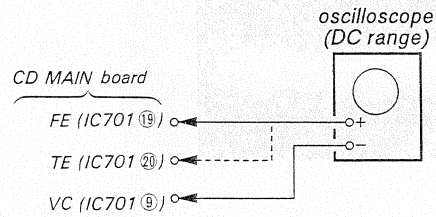
Symptoms / Tracking	Gain	Focus
• The time until music starts becomes longer for STOP ➡ ▶ PLAY or automatic selection (⏮ , ⏭ buttons pressed). (Normally takes about 2 seconds.)	low	low or high
• Music does not start and disc continues to rotate for STOP ➡ ▶ PLAY or automatic selection (⏮ ⏭ buttons pressed).	—	low
• Sound is interrupted during PLAY. Or time counter display stops progressing.	—	low
• More poise during 2-axis device operation.	high	high

The following is a simple adjustment method.

– Simple Adjustment –

Note: Since exact adjustment cannot be performed, remember the positions of the controls before performing the adjustment. If the positions after the simple adjustment are only a little different, return the controls to the original position.

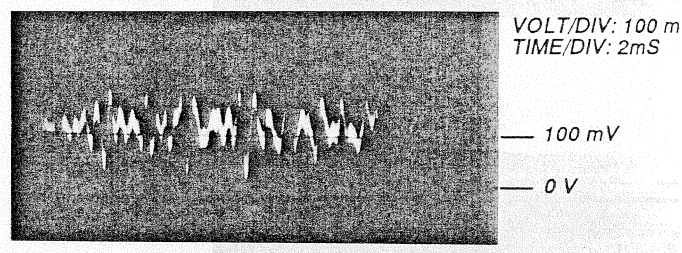
Procedure:



1. Keep the set horizontal.
   (If the set is not horizontal, this adjustment cannot be performed due to the gravity against the 2-axis device.)
2. Insert disc (YEDS-18) and press ▶ PLAY button.
3. Connect the oscilloscope between IC701 pins ⑲ and ⑨.
4. Adjsutment RV702 so that the waveform is as shown in the figure below. (focus gain adjustment)

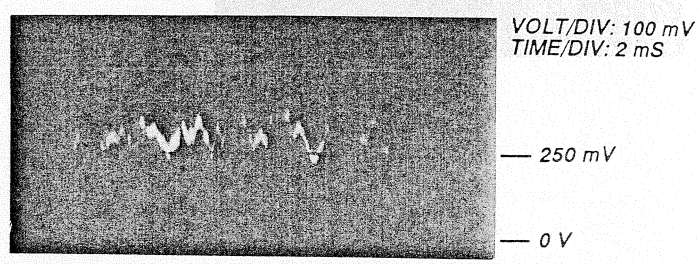
Adjustment Location: CD MAIN board (See page 16)

- Correct Example

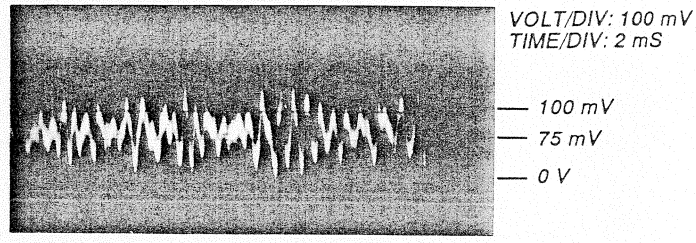


- Incorrent Examples (DC level changes more than on adjusted waveform)

low focus gain



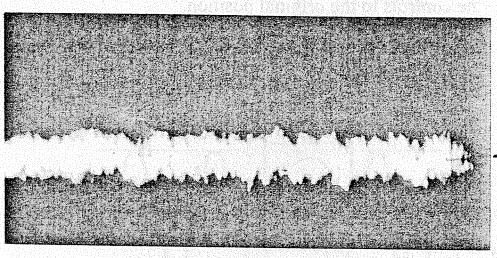
high focus gain



5. Connect the oscilloscope between IC701 pins ⑳ and ⑨.
6. Adjust RV703 so that the waveform is as shown in the figure below. (tracking gain adjustment)

Adjustment Location: CD MAIN board (See page 16)

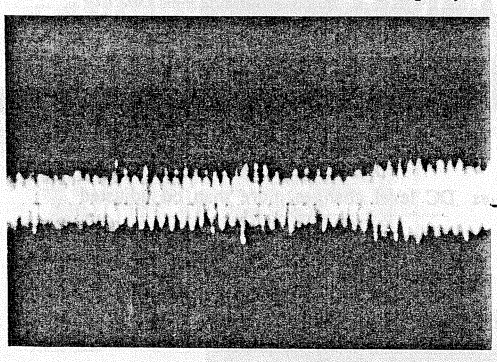
- Correct Example



- Incorrect Examples (fundamental wave appears)

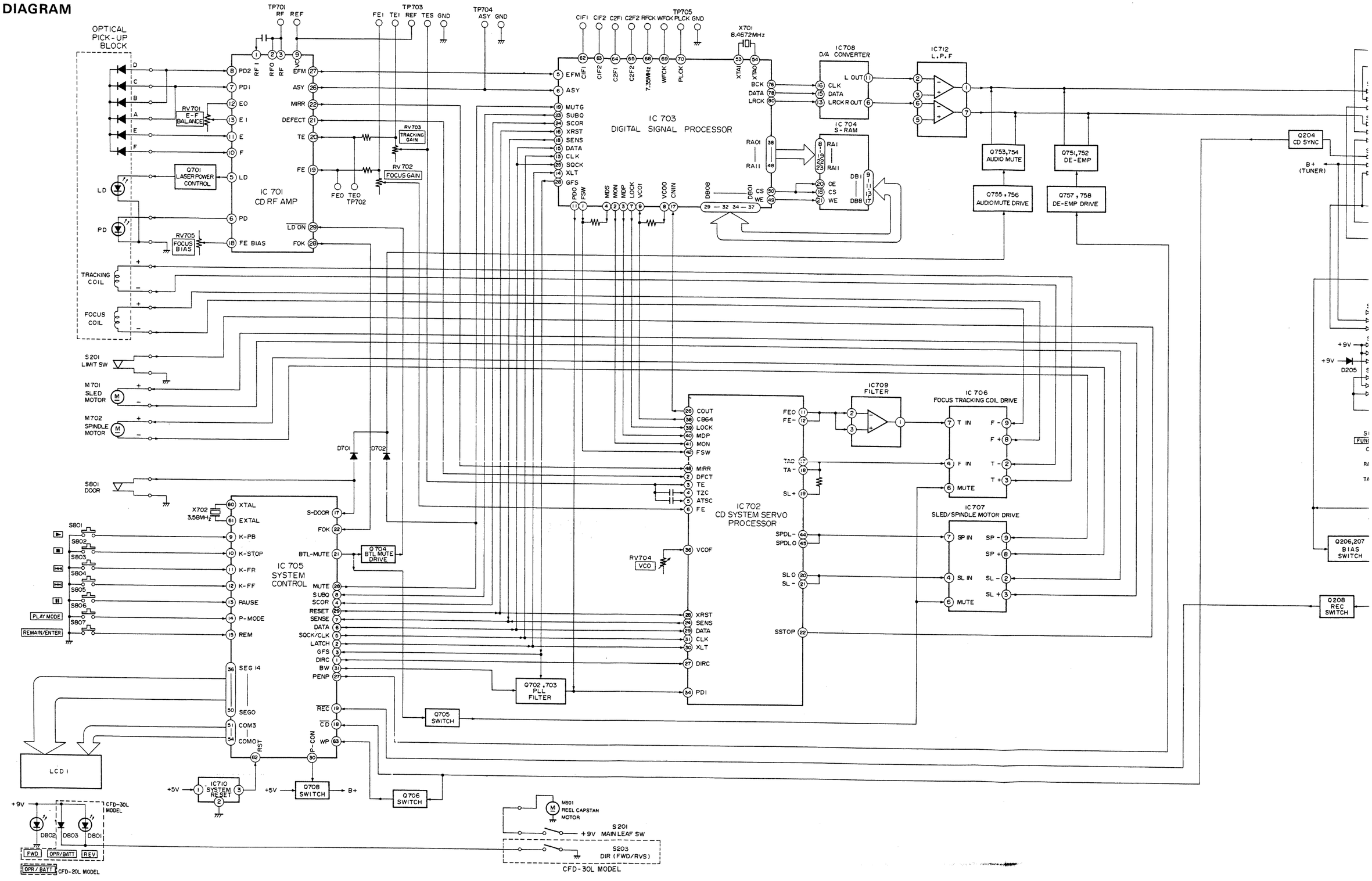
low tracking gain

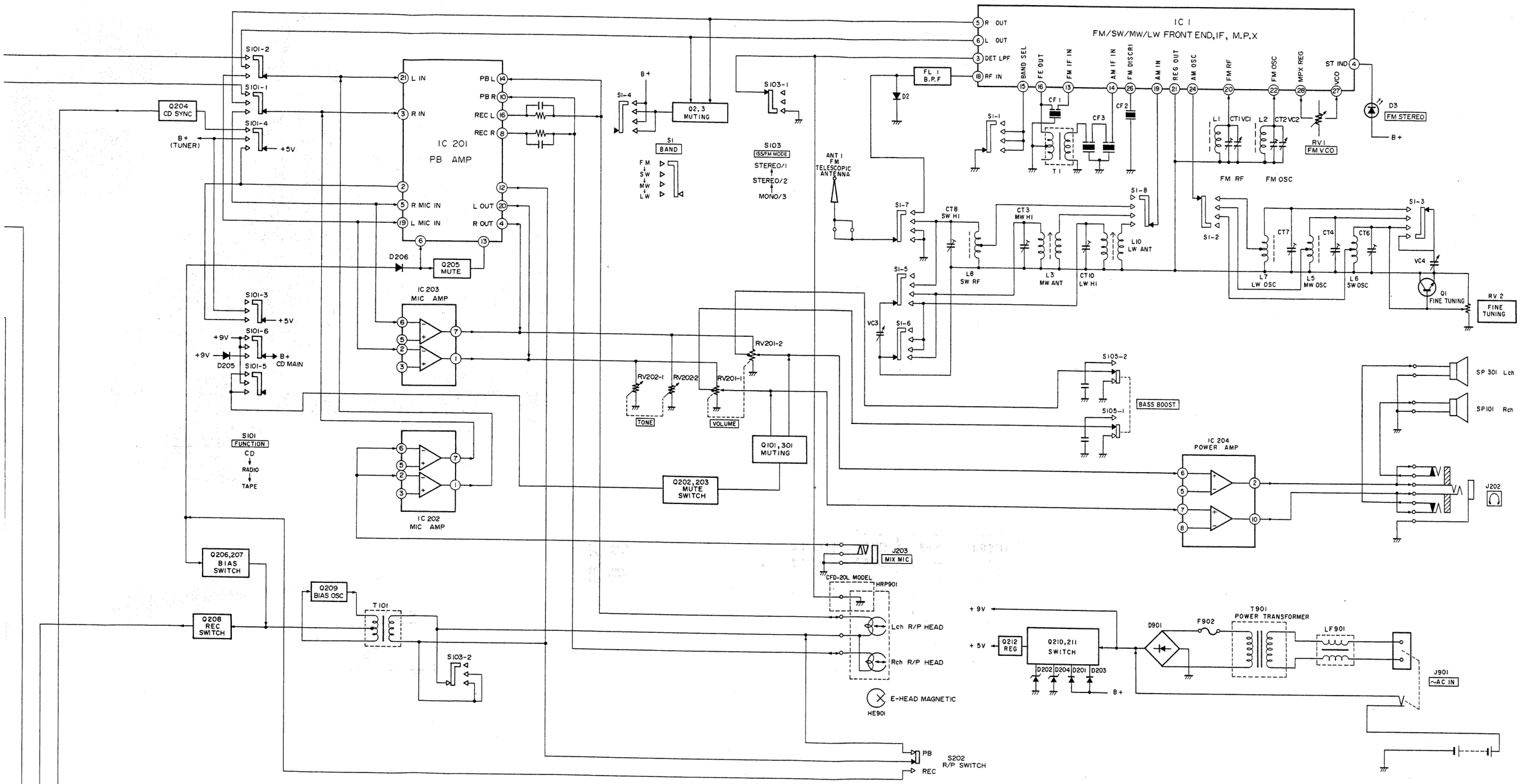
high tracking gain
(higher fundamental wave than for low gain)



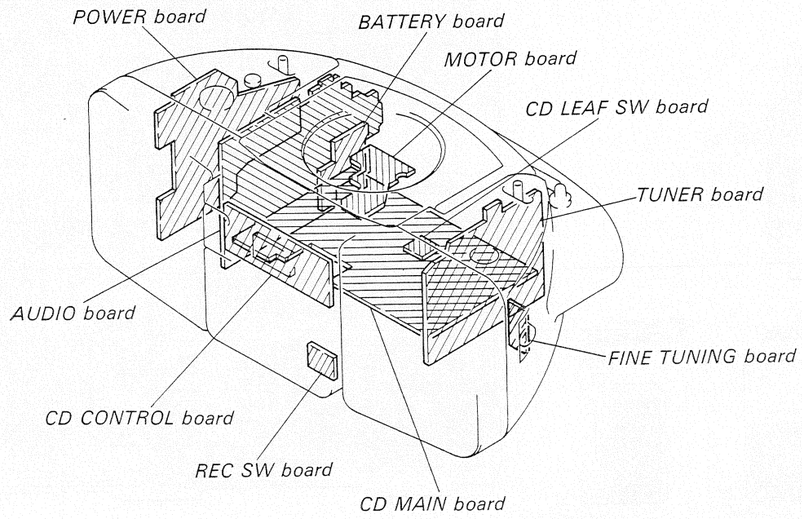
SECTION 6
DIAGRAMS

6-1. BLOCK DIAGRAM




IC 1
FM/SW/MW/LW FRONT END, IF, M.P.X
R OUT
L OUT
DET LPF
RF IN
BAND SEL
FE OUT
FM IF IN
AM IF IN
FM DISCRI
AM IN
REG OUT
AM OSC
FM RF
FM OSC
MPX REG
VCO
ST IND
FL 1 B.P.F
D2
D3 FM STEREO
B+
CF1
CF2
CF3
T1
L1
CT1 VC1
L2
CT2 VC2
RV1 FM VCO
FM RF
FM OSC
ANT 1 FM TELESCOPIC ANTENNA
S1-1
S1-2
S1-3
S1-4
S1-5
S1-6
S1-7
S1-8
CT8 SW HI
CT3 MW HI
L8 SW RF
L3 MW ANT
CT10 LW HI
L10 LW ANT
L7 LW OSC
L5 MW OSC
L6 SW OSC
CT7
CT4
CT6
VC4
Q1 FINE TUNING
RV 2 FINE TUNING
VC3
S1 BAND
FM SW MW LW
S103 ISS/FM MODE
STEREO/1
STEREO/2
MONO/3
S103-1
S103-2
Q2,3 MUTING
IC 201
PB AMP
L IN
R IN
R MIC IN
L MIC IN
PB L
PB R
REC L
REC R
L OUT
R OUT
Q204 CD SYNC
B+ (TUNER)
+5V
S101-1
S101-2
S101-3
S101-4
S101-5
S101-6
+9V
B+ CD MAIN
D205
D206
Q205 MUTE
IC 203
MIC AMP
IC 202
MIC AMP
S101 FUNCTION
CD
RADIO
TAPE
RV201-2
RV202-1
RV202-2
RV201-1
TONE
VOLUME
Q101, 301 MUTING
Q202, 203 MUTE SWITCH
S105-2
S105-1
BASS BOOST
IC 204
POWER AMP
SP 301 Lch
SP101 Rch
J202
J203
MIX MIC
CFD-20L MODEL
HRP901
Lch R/P HEAD
Rch R/P HEAD
E-HEAD MAGNETIC
HE901
PB
REC
S202 R/P SWITCH
Q206,207 BIAS SWITCH
Q208 REC SWITCH
Q209 BIAS OSC
T101
+ 9V
+ 5V
Q212 REG
Q210,211 SWITCH
D202
D204
D201
D203
B+
D901
F902
T901 POWER TRANSFORMER
LF901
J901 ~AC IN

6-2. CIRCUIT BOARDS LOCATION

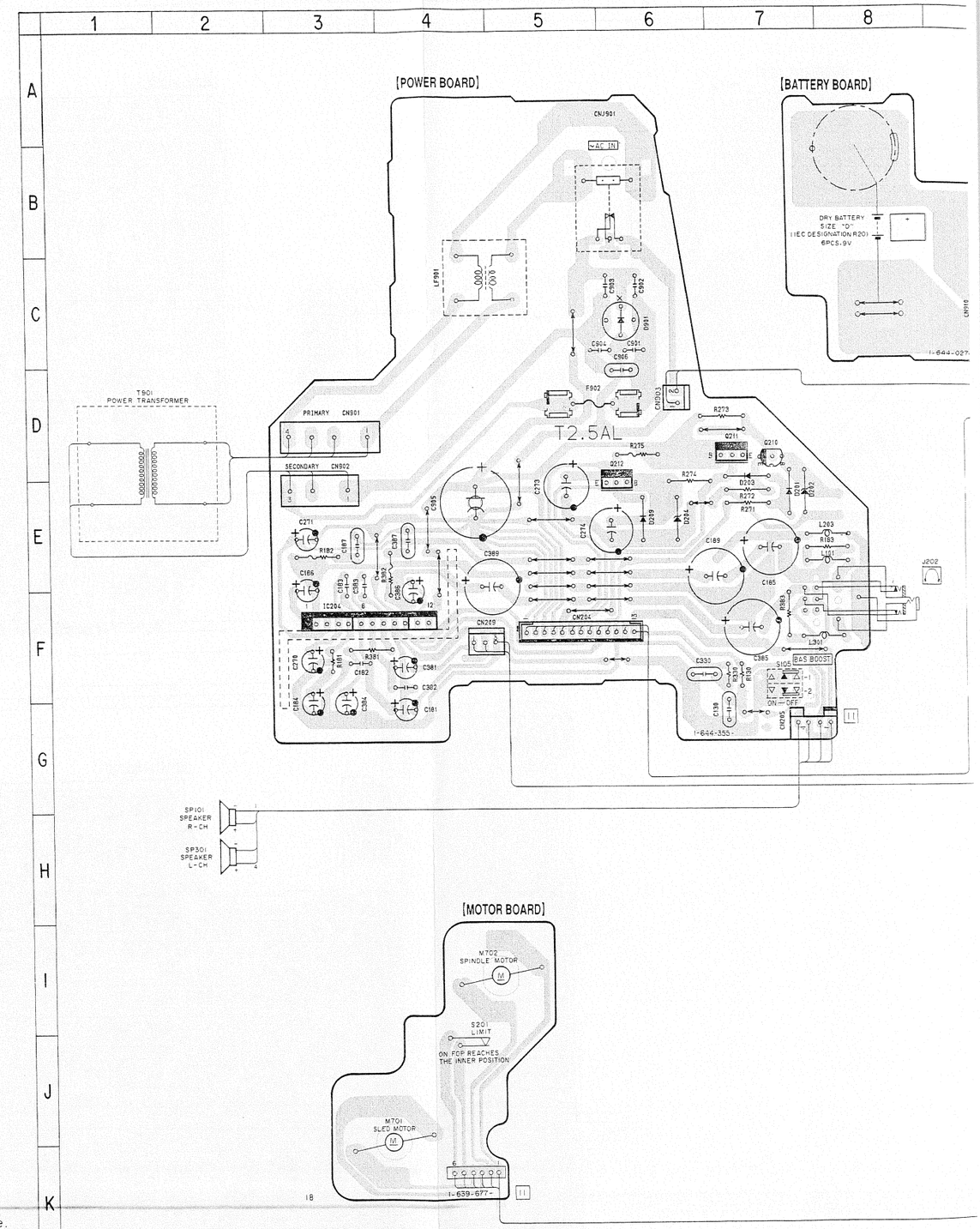


● **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D2	C-23	IC708	L-13
D3	D-21	IC709	H-15
D201	E-7	IC710	J-11
D202	E-7	IC712	K-11
D203	E-7		
D204	E-6	Q1	E-23
D205	A-14	Q2	C-24
D206	F-14	Q3	C-25
D207	D-18	Q101	C-14
D208	D-18	Q202	B-16
D209	E-6	Q203	C-15
D701	J-13	Q204	C-17
D702	J-13	Q205	E-14
D703	J-14	Q206	E-17
D704	I-14	Q207	E-17
D705	I-18	Q208	E-18
D706	I-18	Q209	E-17
D707	J-12	Q210	D-7
D708	K-10	Q211	D-7
D801	J-22	Q212	E-6
D802	J-22	Q301	C-14
D803	I-22	Q701	H-15
D901	C-6	Q702	J-16
		Q703	J-16
IC1	B-23	Q704	I-15
IC201	E-15	Q705	I-15
IC202	C-18	Q706	J-11
IC203	C-15	Q708	I-13
IC204	F-3	Q751	K-12
IC701	H-16	Q752	K-12
IC702	K-16	Q753	K-10
IC703	K-14	Q754	K-10
IC704	J-14	Q755	K-11
IC705	I-11	Q756	K-12
IC706	H-14	Q757	K-13
IC707	I-14	Q758	K-13

Note:
- ○—— : parts extracted from the component side.
- ●—— : parts extracted from the conductor side.
- ▒▒▒ : Pattern on the side which is seen.

6-3. PRINTED WIRING BOARDS



[BATTERY BOARD]

DRY BATTERY SIZE "D" (IEC DESIGNATION R20) 6PCS.9V

1-644-027-

CFD-20L MODEL

S201 LEAF MAIN

M901 REEL CAPSTAN MOTOR

[AUDIO BOARD]

VOLUME RV201

TONE RV202

S101 FUNCTION TAPE RADIO

S203 MIX MIC

S103 ISS/FM MODE STEREO MONO

CFD-30L MODEL

S203 LEAF DIRECTION

S201 LEAF MAIN

M901 REEL CAPSTAN MOTOR

HRP901 REC/PB HEAD

CFD-20L MODEL

1-644-029-

CFD-30L MODEL [REC SW BOARD]

REC — PB S202

1-644-449-

CFD-20L MODEL [REC SW BOARD]

S202 REC PB

1-644-450-

[TUNER BOARD]

FM STEREO

FM ST LED

BAND LW-MW-SW-FM

FM ANT

AM IFT

HW FERRITE ROD ANTENNA

LW FERRITE ROD ANTENNA

LW OSC MW OSC SW OSC

SW ANT

ANT FM ANT

ANTI FM TELESCOPIC ANTENNA

1-644-024-

[BASS BOOST]

S105 BASS BOOST ON — OFF

1-644-355-

[CD MAIN BOARD]

OPTICAL PICK-UP BLOCK

[CD LEAF SW BOARD]

CN804 S812

1-644-031-

[CD CONTROL BOARD]

CFD-30L MODEL

LCD1

CFD-30L MODEL FWD

CFD-20L MODEL OPR/BATT

OPR/BATT REV

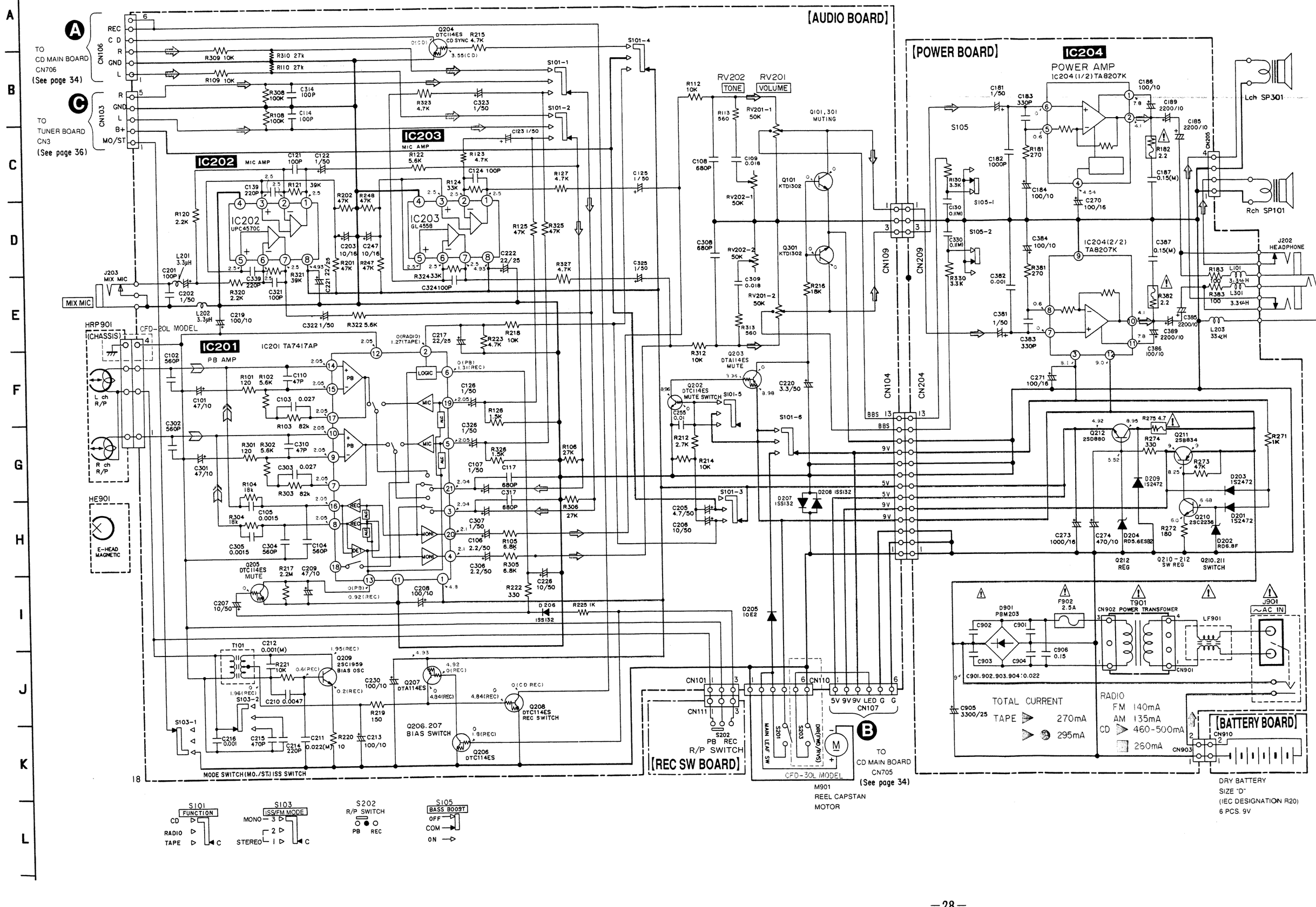
REMAIN/ENTER PLAY MODE

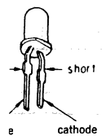
1-644-032-

[FINE TUNING BOARD]

RV2 FINE TUNING

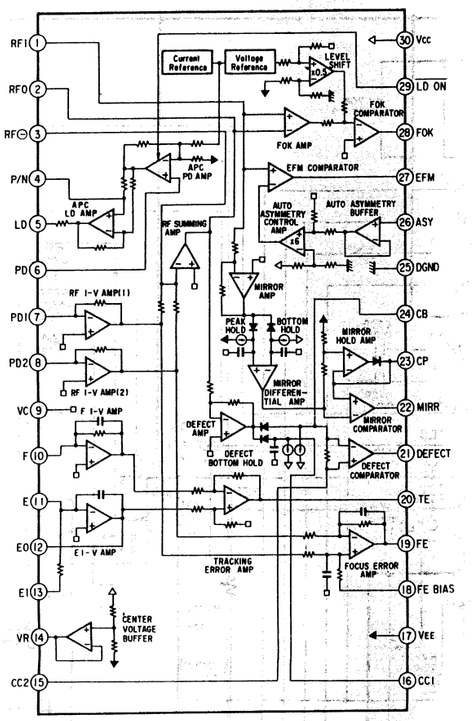
1-644-357-


[AUDIO BOARD]
[POWER BOARD]
IC204
POWER AMP
IC204(1/2)TA8207K
IC204(2/2)
TA8207K
IC203
MIC AMP
IC202
MIC AMP
IC202
UPC4570C
IC203
GL4558
IC201
IC201 TA7417AP
PB AMP
CN106
TO
CD MAIN BOARD
CN706
(See page 34)
CN103
TO
TUNER BOARD
CN3
(See page 36)
REC
C D
R
GND
L
R
GND
L
B+
MO/ST
MIX MIC
J203
MIX MIC
HRP901
(CHASSIS)
CFD-20L MODEL
L ch
R/P
R ch
R/P
HE901
E-HEAD
MAGNETIC
RV202
TONE
RV201
VOLUME
Q101, 301
MUTING
Q101
KTD1302
Q301
KTD1302
Q203
DTA114ES
MUTE
Q202
DTC114ES
MUTE SWITCH
Q205
DTC114ES
MUTE
Q204
DTC114ES
CD SYNC
Q207
DTA114ES
BIAS SWITCH
Q206
DTC114ES
Q208
DTC114ES
REC SWITCH
Q209
2SC1959
BIAS OSC
D205
10E2
D206
1SS132
D207
1SS132
D208
1SS132
S101-1
S101-2
S101-3
S101-4
S101-5
S101-6
S105
S105-1
S105-2
S103-1
S103-2
S202
PB REC
R/P SWITCH
[REC SW BOARD]
MAIN LEAF SW
S201
S203
DIR(FWD/REV)
M
M901
REEL CAPSTAN
MOTOR
CFD-30L MODEL
TO
CD MAIN BOARD
CN705
(See page 34)
CN101
CN111
CN110
CN107
5V 9V 9V LED G G
CN109
CN209
CN104
CN204
BBS 13
BBS
9V
5V
5V
9V
9V
Lch SP301
Rch SP101
J202
HEADPHONE
J901
~AC IN
D901
PBM203
F902
2.5A
T901
CN902 POWER TRANSFOMER
LF901
CN901
C901.902.903.904:0.022
TOTAL CURRENT
TAPE 270mA
295mA
RADIO
FM 140mA
AM 135mA
CD 460-500mA
260mA
[BATTERY BOARD]
CN910
CN903
DRY BATTERY
SIZE "D"
(IEC DESIGNATION R20)
6 PCS. 9V
REG
SW REG
SWITCH
MODE SWITCH(MO./ST.) ISS SWITCH
S101
FUNCTION
CD
RADIO
TAPE
S103
ISS/FM MODE
MONO
STEREO
S202
R/P SWITCH
PB REC
S105
BASS BOOST
OFF
COM
ON

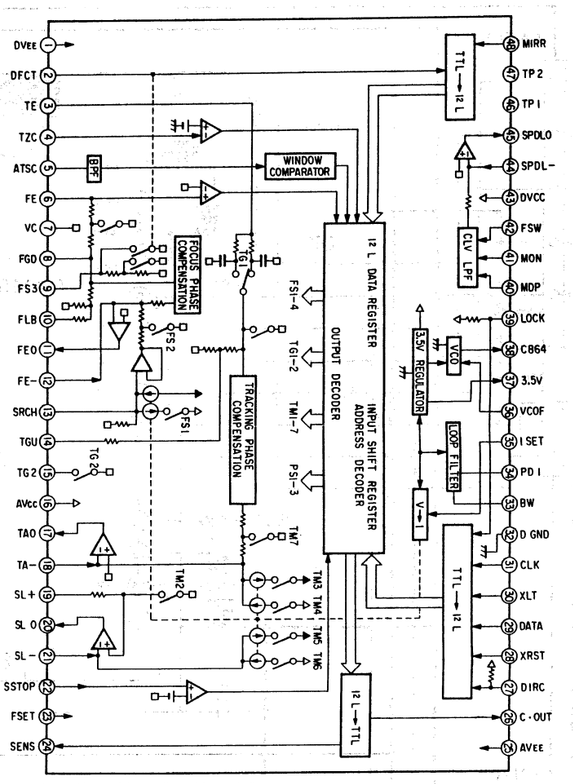


● IC Block Diagrams

IC701 CXA1081S



IC702 CXA1182S



IC703 CXD1130Q

IC704 GM76C28

IC706, 707 BA6294

IC1 CXA1238S

1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13

W701 CN701

KSS-210B

OPTICAL PICK-UP BLOCK

IC701
CD RF AMP
IC701 CXA1081S

IC702
CD SYSTEM SERVO PROC
IC702 CXA1082BS

IC706
FOCUS TRACKING COIL DRIVE
IC706 BA6294

IC707
SLED/SPINDLE MOTOR DRIVE
IC707 BA6294

IC709
FILTER
IC709 GL4558

LASER POWER CONTROL

[MOTOR BOARD]

[CD LEAF SW BOARD]

[CD CONTROL BOARD]

CFD-30L MODEL

CFD-20L MODEL

[CD MAIN BOARD]

IC708 D/A CONVERTER

IC708 UPD6376CX

1 NC, 2 DGND, 3 DVDD, 4 DVDD, 5 AGND, 6 ROUT, 7 AVDD, 8 AVDD
16 CLK, 15 DATA, 14 LRSEL, 13 LRCK, 12 AGND, 11 LOUT, 10 LREF, 9 RREF

IC712 L.P.F GL4558

IC712

IC703

IC703
CXD 1130Q
DIGITAL SIGNAL
PROCESSOR

IC704 S-RAM

GM76C28
IC704

IC705

IC705
CXP5084-624Q
SYSTEM
CONTROL

IC710 SYSTEM RESET

IC710
KIA7039P

Q702.703 PLL FILTER

Q705 RN1210 SWITCH

Q706 DTA124ES SWITCH

Q708 2SA1015 SWITCH

Q751 RN1210 DE-EMP Q751,752

Q752 RN1210

Q753 RN1210 AUDIO MUTE Q753,754

Q754 RN1210

Q755 DTA124ES

Q756 2SC1815GR

Q757 DTA 124ES DE-EMP DRIVE Q757,758

Q758 RN1210 AUDIO MUTE Q755,756

Q702 RN1203

Q703 RN1203

CN706: L, GND, R, CD, REC, 6 → A TO AUDIO BOAF CN106 (See page 27

CN705: 5V, 9V, 9V, LED, GND, GND, 6 → B TO AUDIO BO/ CN107 (See page 28

TP705 PLCK, WFCK, RFCK

TP706 MODE TEST

X701 8.4672MHz

X702 3.58MHz

D701 ISS132

D702 ISS132

D703 ISS132

D704 ISS132

D707 ISS132

D708 ISS132

6-5. SEMICONDUCTOR LEAD LAYOUTS

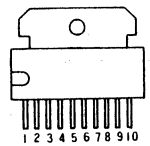
Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- % : indicates tolerance.
- : fusible resistor.

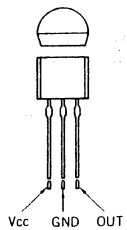
Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

- : B+ Line
- : adjustment for repair.
- Power voltage is dc 9 V and fed with regulated dc power supply from external BATTERY TERMINAL.
  no mark: STOP
  ( ): PLAY
- Voltages are taken with a VOM (Input Impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  : FM : PB : CD
  : REC

BA6294

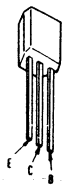


KIA7039P

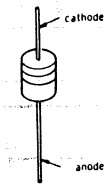


2SA1015-GR
2SC1815-GR
2SC2001-LK

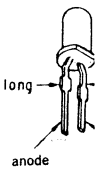
DTA114ES
DTA124ES
DTC114ES
RN1203
RN1210



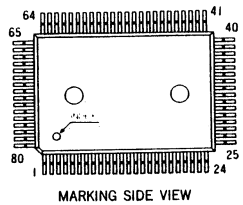
1SS202-1
RD5.6ES-B2



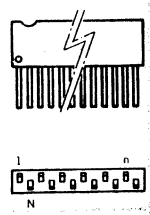
GL-3F



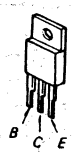
CXD1130Q



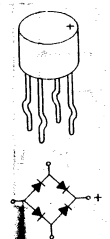
TA7417AP



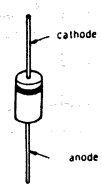
2SB834-Y
2SD880-YGR



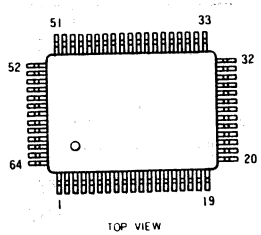
PBM203



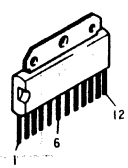
10E-2
1S2472
RD6.8F-B2



CXP5084-624Q



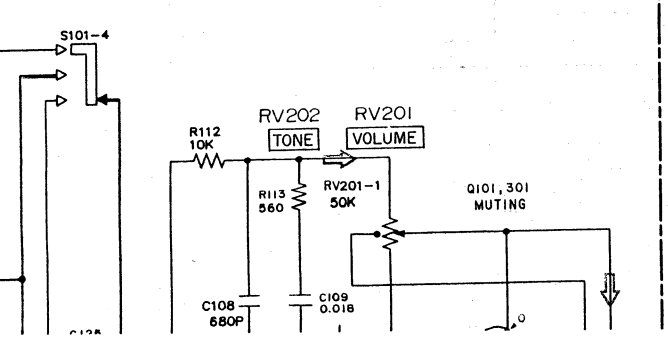
TA8207K



2SC2236-0
KTD1302

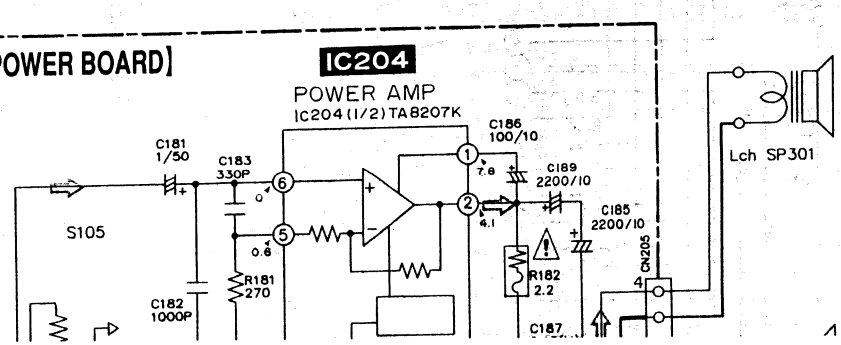
9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18

[AUDIO BOARD]

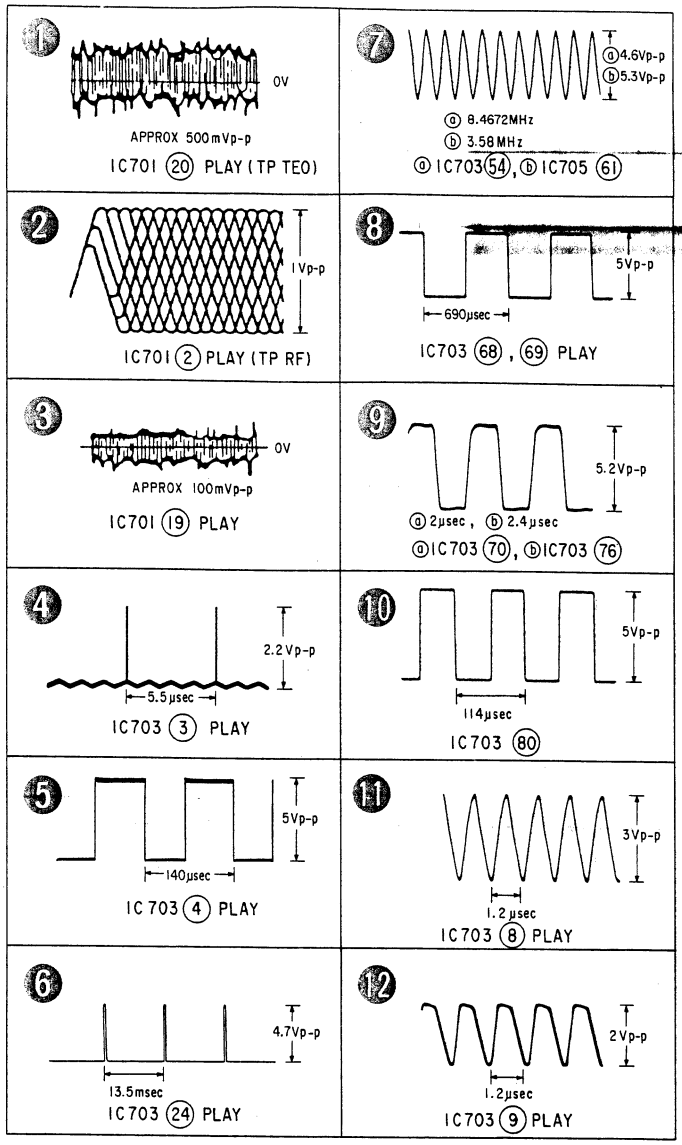


[POWER BOARD] IC204

POWER AMP
IC204(1/2)TA8207K



• WAVEFORMS



Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- % : indicates tolerance.
- ⊣⊢ : fusible resistor.

Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

- ▬▬ : B+ Line
- ▭ : adjustment for repair.
- Power voltage is dc 9 V and fed with regulated dc power supply from external BATTERY TERMINAL.
  no mark : STOP
  ( ) : PLAY
- Voltages are taken with a VOM (Input Impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇒ : CD

6

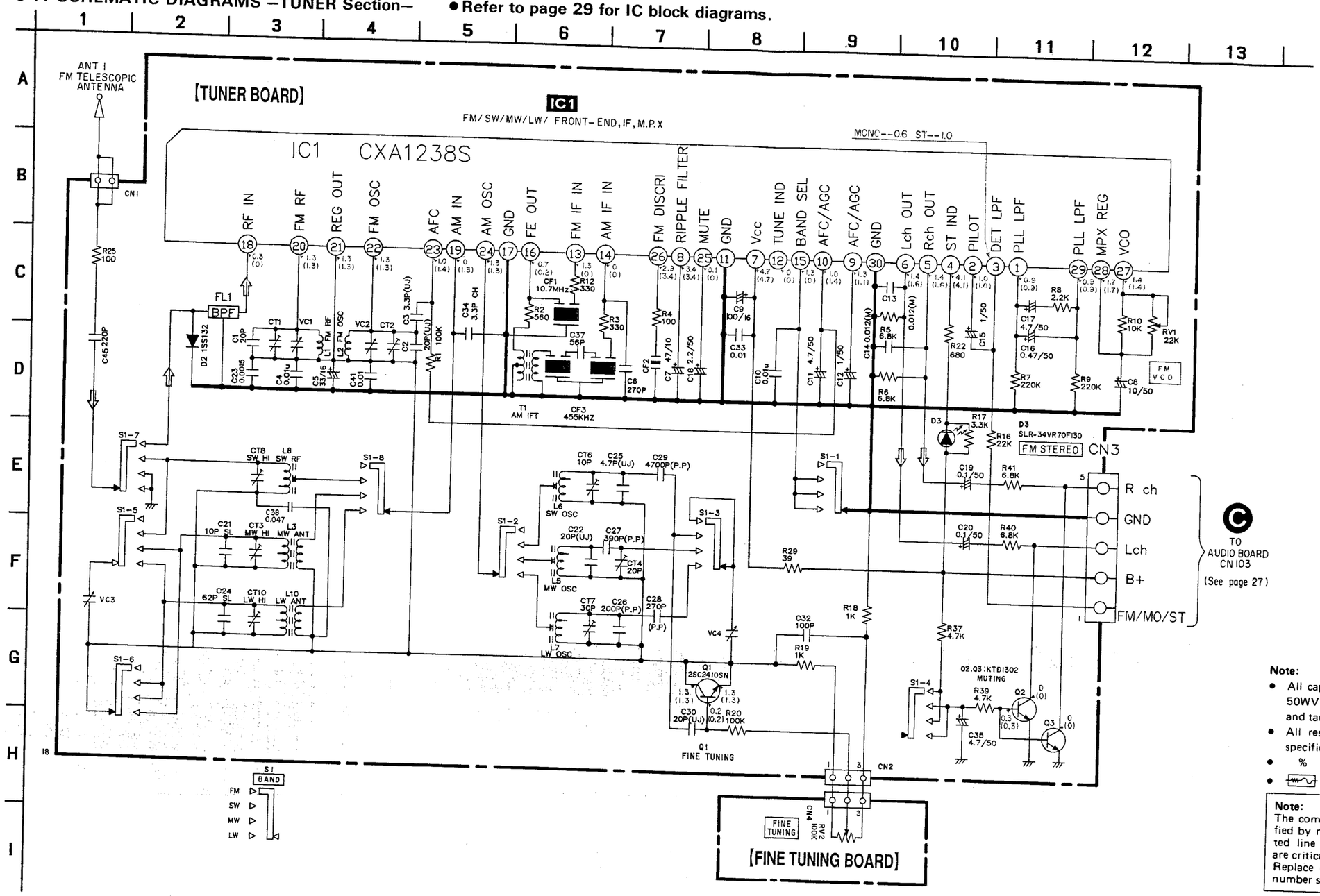
NOTE:
• -XX, -X mea
they may ha
the original
• Color Indica
Example:
KNOB, BAL

7-1. FR

Ref. N
1
1
2
2
2
3
4
4
5
5
5
5
5
5
6
6
6
7
8

6-7. SCHEMATIC DIAGRAMS –TUNER Section–

● Refer to page 29 for IC block diagrams.



Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- % : indicates tolerance.
- : fusible resistor.

Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

- : B+ Line
- : adjustment for repair.
- Power voltage is dc 9 V and fed with regulated dc power supply from external BATTERY TERMINAL.
  no mark : FM
  ( ) : MW
- Voltages are taken with a VOM (Input Impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : FM

SECTION 7
EXPLODED VIEWS

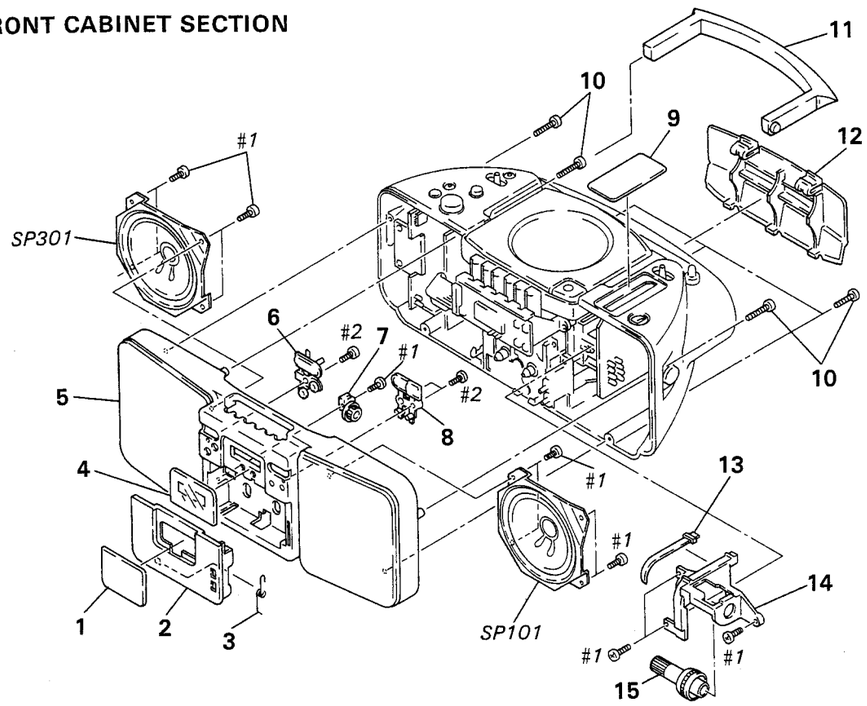
NOTE:
- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE(WHITE)...(RED)
  ↑ ↑
  Parts color Cabinet's color

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- hardware (#mark) list is given in the last of this parts list.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

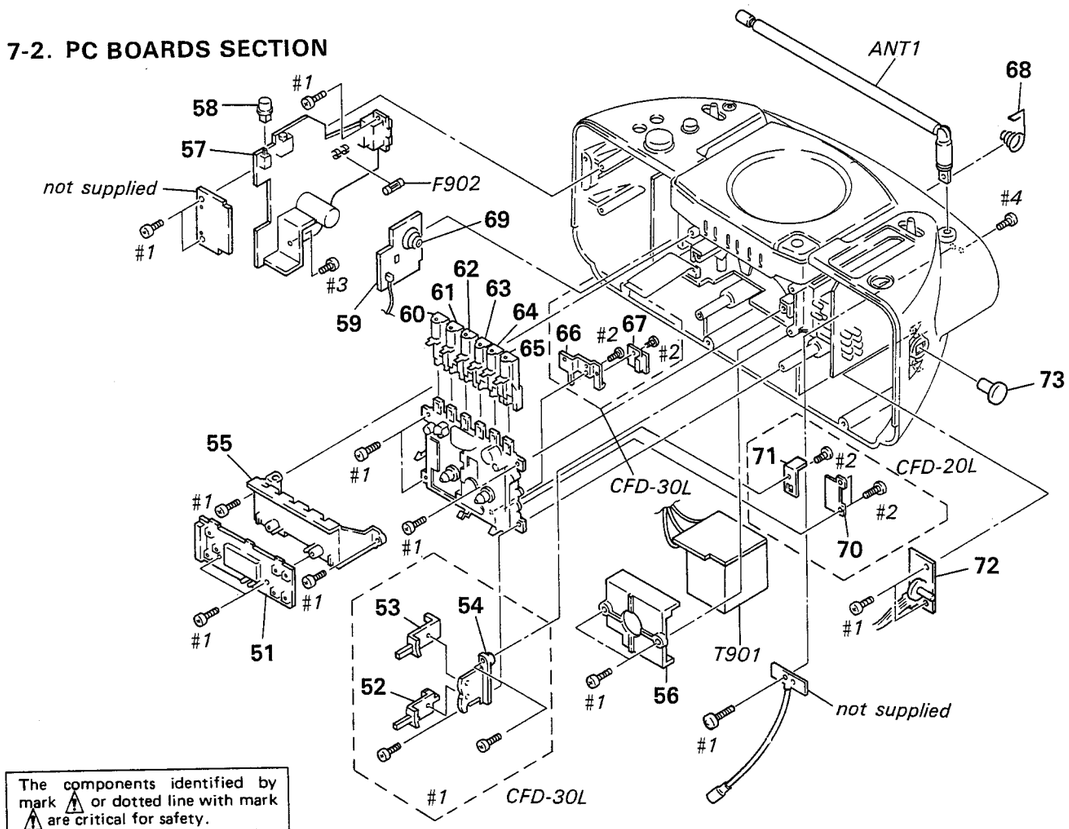
- Abbreviations
  G : Germany model
  IT : Italian model

7-1. FRONT CABINET SECTION



Ref.No.	Part No.	Description	Remark
1	3-378-214-01	WINDOW (A/R), CASSETTE (CFD-30L)	
1	3-378-219-01	WINDOW, CASSETTE (CFD-20L)	
2	3-380-985-01	HOLDER, CASSETTE (WHITE) (CFD-20L:AEP, UK, G/CFD-30L)	
2	3-380-985-11	HOLDER, CASSETTE (BLACK)	
2	3-380-985-21	HOLDER, CASSETTE (BLUE) (CFD-20L:AEP, UK, G/CFD-30L)	
3	3-380-713-01	SPRING, CASSETTE	
4	3-378-212-01	WINDOW (A/R), LCD (CFD-30L)	
4	3-378-218-01	WINDOW, LCD (CFD-20L)	
5	X-3365-360-1	CABINET (FRONT) SUB ASSY (BLACK) (CFD-20L)	
5	X-3365-359-1	CABINET (FRONT) SUB ASSY (WHITE) (CFD-20L:AEP, UK, G)	
5	X-3365-361-1	CABINET (FRONT) SUB ASSY (BLUE) (CFD-20L:AEP, UK, G)	
5	X-3365-704-1	CABINET (FRONT) SUB ASSY (WHITE) (CFD-30L)	
5	X-3365-705-1	CABINET (FRONT) SUB ASSY (BLACK) (CFD-30L)	
5	X-3365-706-1	CABINET (FRONT) SUB ASSY (BLUE) (CFD-30L)	
6	3-380-095-01	KNOB, CD (A) (WHITE) (CFD-20L:AEP, UK, G/CFD-30L)	
6	3-380-095-11	KNOB, CD (A) (BLACK)	
6	3-380-095-21	KNOB, CD (A) (BLUE) (CFD-20L:AEP, UK, G/CFD-30L)	
7	3-380-711-01	DAMPER, CASSETTE HOLDER	
8	3-380-096-11	KNOB, CD (B) (BLACK)	
8	3-380-096-01	KNOB, CD (B) (WHITE) (CFD-20L:AEP, UK, G/CFD-30L)	
8	3-380-096-21	KNOB, CD (B) (BLUE) (CFD-20L:AEP, UK, G/CFD-30L)	
9	3-378-221-11	WINDOW, DIAL (BLACK) (CFD-20L:IT)	
9	3-378-220-01	WINDOW, DIAL (WHITE) (CFD-20L:AEP, UK, G/CFD-30L)	
9	3-378-220-11	WINDOW, DIAL (BLACK) (CFD-20L:AEP, UK, G/CFD-30L)	
9	3-378-220-21	WINDOW, DIAL (BLUE) (CFD-20L:AEP, UK, G, CFD-30L)	
10	3-380-715-01	SCREW (3X27.5) (WHITE)	
10	3-380-716-01	SCREW (3X28) (BLACK, BLUE)	
11	3-380-085-01	HANDLE (WHITE) (CFD-20L:AEP, UK, G/CFD-30L)	
11	3-380-085-11	HANDLE (BLACK)	
11	3-380-085-21	HANDLE (BLUE) (CFD-20L:AEP, UK, G/CFD-30L)	
12	3-380-103-31	COVER, BATTERY (WHITE) (CFD-20L:AEP, UK, G/CFD-30L)	
12	3-380-103-41	COVER, BATTERY (BLACK)	
12	3-380-103-51	COVER, BATTERY (BLUE) (CFD-20L:AEP, UK, G/CFD-30L)	
13	3-380-087-01	GEAR, POINTER	
14	3-380-093-01	CHASSIS, TUNING	
15	3-380-086-11	KNOB (TUNING) (BLACK)	
15	3-380-086-01	KNOB (TUNING) (WHITE) (CFD-20L:AEP, UK, G/CFD-30L)	
15	3-380-086-21	KNOB (TUNING) (BLUE) (CFD-20L:AEP, UK, G/CFD-30L)	
SP101	1-544-743-11	SPEAKER R	
SP301	1-544-743-11	SPEAKER L	

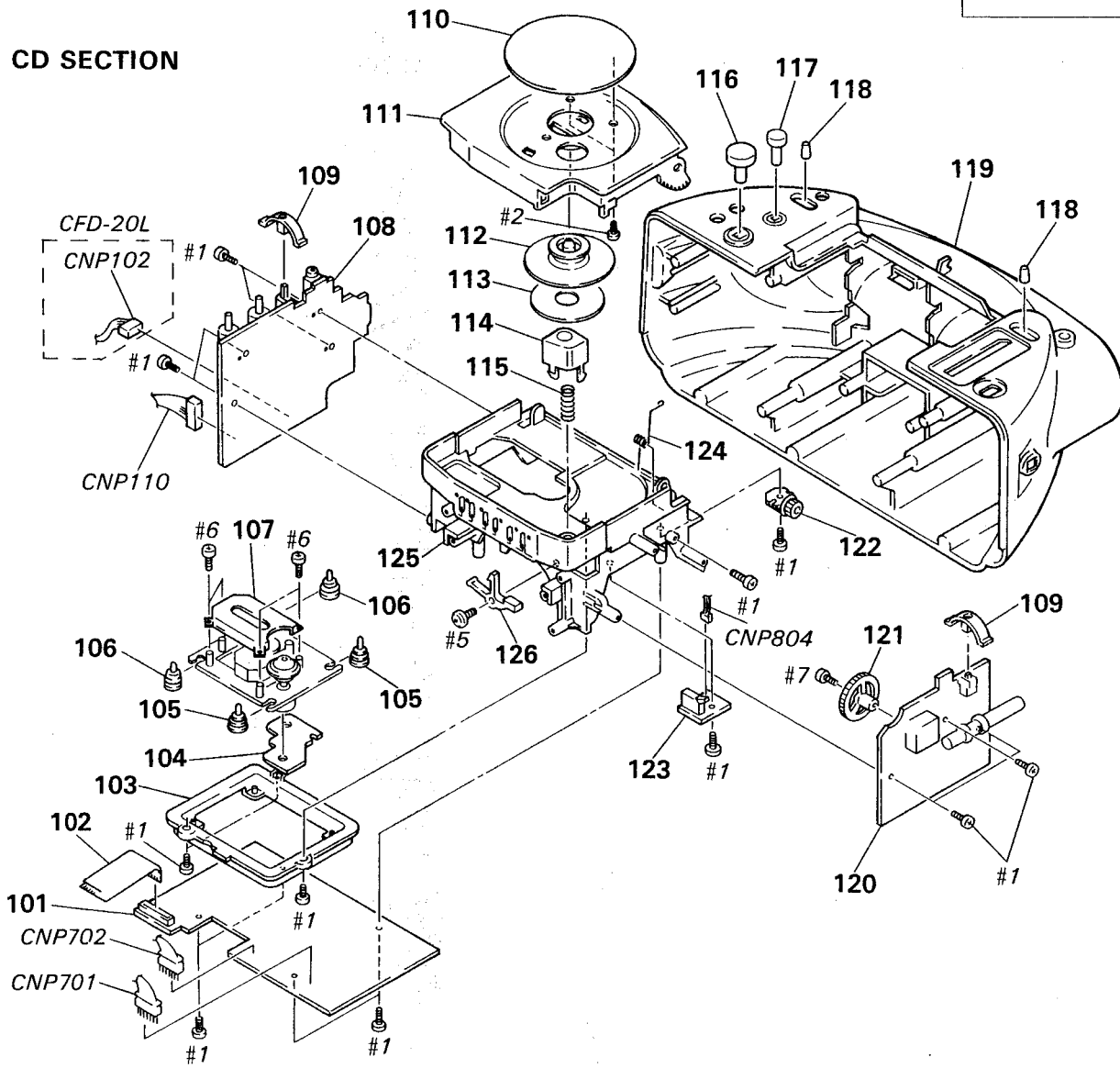
7-2. PC BOARDS SECTION



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

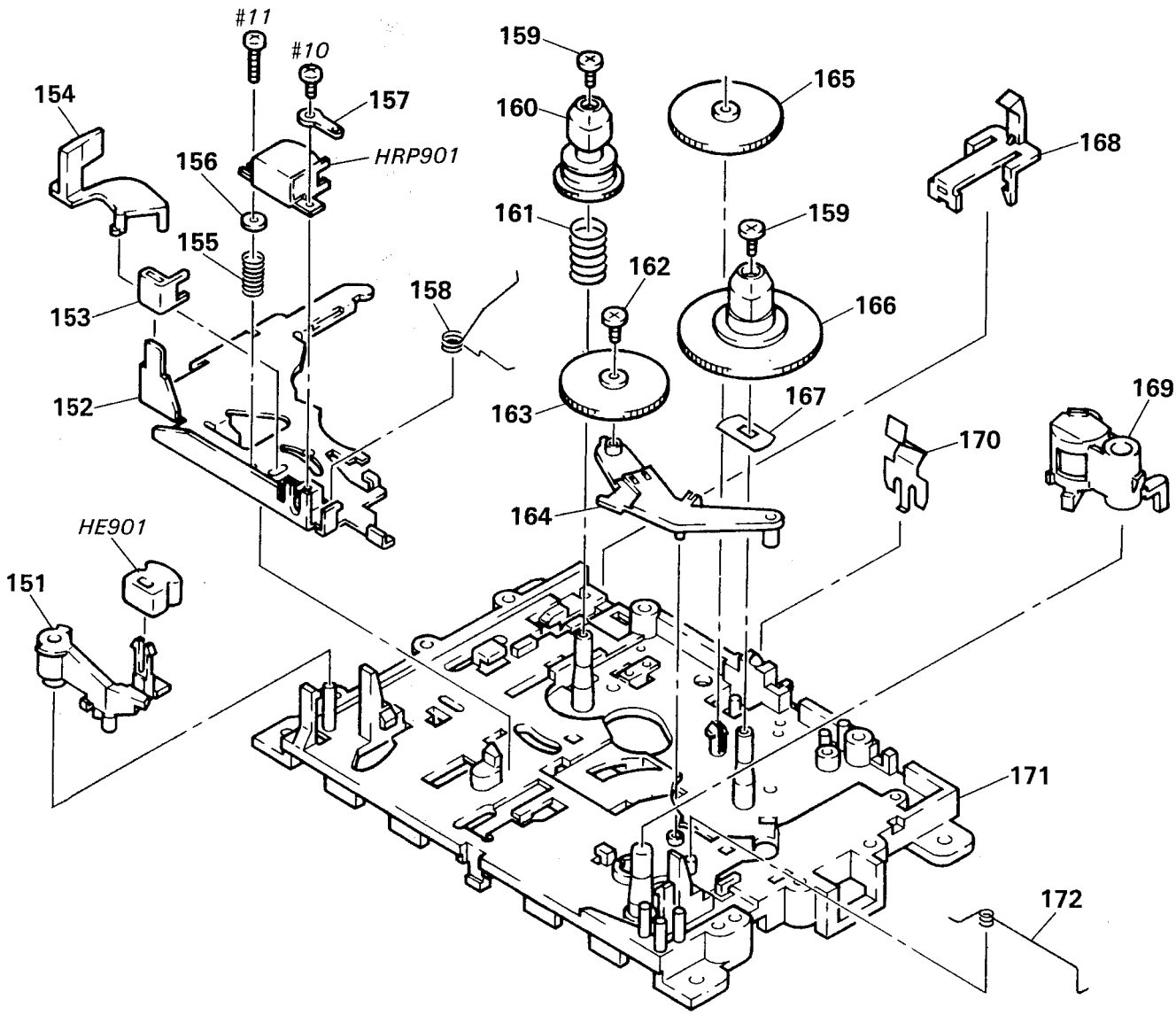
Ref.No.	Part No.	Description	Remark
* 51	1-644-032-11	CD CONTROL BOARD	
52	3-340-065-01	KNOB, DIRECTION (WHITE) (CFD-30L)	
52	3-340-065-11	KNOB, DIRECTION (BLACK) (CFD-30L)	
52	3-340-065-21	KNOB, DIRECTION (BLUE) (CFD-30L)	
53	3-380-073-01	KNOB (MODE) (WHITE) (CFD-30L)	
53	3-380-073-11	KNOB (MODE) (BLACK) (CFD-30L)	
53	3-380-073-21	KNOB (MODE) (BLUE) (CFD-30L)	
54	3-380-082-01	HOLDER (REVERSE) (CFD-30L)	
* 55	3-380-079-01	HOLDER, LCD	
* 56	3-380-081-01	HOLDER, POWER TRANS	
* 57	A-3262-718-A	POWER BOARD, COMPLETE	
58	3-380-072-01	KNOB, B/B(WHITE) (CFD-20L:AEP, UK, G/CFD-30L)	
58	3-380-072-11	KNOB, B/B(BLACK)	
58	3-380-072-21	KNOB, B/B(BLUE) (CFD-20L:AEP, UK, G/CFD-30L)	
59	1-644-515-11	BATTELY BOARD	
60	3-380-094-01	KNOB, PAUSE (WHITE) (CFD-30L)	
60	3-380-094-11	KNOB, PAUSE (BLACK) (CFD-30L)	
60	3-380-094-21	KNOB, PAUSE (BLUE) (CFD-30L)	
60	3-380-983-01	KNOB, PAUSE (WHITE) (CFD-20L:AEP, UK, G)	
60	3-380-983-11	KNOB, PAUSE (BLACK) (CFD-20L)	
60	3-380-983-21	KNOB, PAUSE (BLUE) (CFD-20L:AEP, UK, G)	
61	3-380-091-01	KNOB, STOP/EJ (WHITE) (CFD-30L)	
61	3-380-091-11	KNOB, STOP/EJ (BLACK) (CFD-30L)	
61	3-380-091-21	KNOB, STOP/EJ (BLUE) (CFD-30L)	
61	3-380-984-01	KNOB, STOP/EJ (WHITE) (CFD-20L:AEP, UK, G)	
61	3-380-984-11	KNOB, STOP/EJ (BLACK) (CFD-20L)	
61	3-380-984-21	KNOB, STOP/EJ (BLUE) (CFD-20L:AEP, UK, G)	
62	3-380-092-01	KNOB, FF (WHITE) (CFD-30L)	
62	3-380-092-11	KNOB, FF (BLACK) (CFD-30L)	
62	3-380-092-21	KNOB, FF (BLUE) (CFD-30L)	
62	3-380-981-01	KNOB, FF (WHITE) (CFD-20L:AEP, UK, G)	
62	3-380-981-11	KNOB, FF (BLACK) (CFD-20L)	
62	3-380-981-21	KNOB, FF (BLUE) (CFD-20L:AEP, UK, G)	
63	3-380-088-01	KNOB, RWD (WHITE) (CFD-30L)	
63	3-380-088-11	KNOB, RWD (BLACK) (CFD-30L)	
63	3-380-088-21	KNOB, RWD (BLUE) (CFD-30L)	
63	3-380-982-01	KNOB, RWD (WHITE) (CFD-20L:AEP, UK, G)	
63	3-380-982-11	KNOB, RWD (BLACK) (CFD-20L)	
63	3-380-982-21	KNOB, RWD (BLUE) (CFD-20L:AEP, UK, G)	
64	3-380-089-01	KNOB, PLAY (WHITE) (CFD-30L)	
64	3-380-089-11	KNOB, PLAY (BLACK) (CFD-30L)	
64	3-380-089-21	KNOB, PLAY (BLUE) (CFD-30L)	
64	3-380-979-01	KNOB, PLAY (WHITE) (CFD-20L:AEP, UK, G)	
64	3-380-979-11	KNOB, PLAY (BLACK) (CFD-20L)	
64	3-380-979-21	KNOB, PLAY (BLACK) (CFD-20L:AEP, UK, G)	
65	3-380-090-01	KNOB, REC (WHITE) (CFD-30L)	
65	3-380-090-11	KNOB, REC (BLACK) (CFD-30L)	
65	3-380-090-21	KNOB, REC (BLUE) (CFD-30L)	
65	3-380-986-01	KNOB, REC (WHITE) (CFD-20L:AEP, UK, G)	
65	3-380-986-11	KNOB, REC (BLACK) (CFD-20L)	
65	3-380-986-21	KNOB, REC (BLUE) (CFD-20L:AEP, UK, G)	
66	3-380-068-01	BRACKET (REC) (CFD-30L)	
67	1-644-513-11	REC SW(RVS)BOARD (CFD-30L)	
68	3-380-712-01	SPRING, BATT (+, -)	
69	3-380-067-01	SPRING, BATT (-)	
70	1-644-512-11	REC SW BOARD (CFD-20L)	
71	3-380-980-01	BRACKET, REC (CFD-20L)	
72	1-644-511-11	FINE TUNING BOARD	
73	3-381-134-11	BUTTON, FINE TUNING (BLACK)	
73	3-381-134-01	BUTTON, FINE TUNING (WHITE) (CFD-20L:AEP, UK, G/CFD-30L)	
73	3-381-134-21	BUTTON, FINE TUNING (BLUE) (CFD-20L:AEP, UK, G/CFD-30L)	
ANT1	1-501-537-11	ANTENNA, TELESCOPIC	
⚠F902	1-532-286-11	FUSE, GLASS TUBE (2.5A/250V)	
⚠T901	1-450-985-11	TRANSFORMER, POWER (CFD-20L:AEP, IT, G/CFD-30L)	
⚠T901	1-450-993-11	TRANSFORMER, POWER (CFD-20L:UK)	

7-3. CD SECTION



Ref. No.	Part No.	Description	Remark
* 101	A-3275-519-A	CD MAIN BOARD, COMPLETE	
102	1-696-020-11	CABLE, FLAT	
* 103	3-380-080-01	HOLDER, CD	
* 104	1-636-789-13	MOTOR BOARD	
105	3-380-720-01	CUSHION CD	
* 106	3-381-610-01	CUSHION, CD (BLK)	
* 107	3-380-724-01	COVER, MD, CD	
* 108	A-3262-671-A	AUDIO BOARD, COMPLETE (CFD-30L)	
* 108	A-3262-694-A	AUDIO BOARD, COMPLETE (CFD-20L)	
109	3-380-070-11	KNOB, LEVER (BLACK)	
109	3-380-070-01	KNOB, LEVER (WHITE) (CFD-20L:AEP, UK, G/CFD-30L)	
109	3-380-070-21	KNOB, LEVER (WBLUE) (CFD-20L:AEP, UK, G/CFD-30L)	
110	3-380-078-01	WINDOW, CD	
111	3-380-097-31	COVER, CD(WHITE) (CFD-20L:AEP, UK, G/CFD-30L)	
111	3-380-097-41	COVER, CD(BLACK)	
111	3-380-097-51	COVER, CD(BLUE) (CFD-20L:AEP, UK, G/CFD-30L)	
112	3-380-721-01	CHUCK PLATE	
* 113	3-381-611-01	SHEET, CHUCK HOLDER	
114	3-380-074-01	KNOB, CD EJECT (WHITE) (CFD-20L:AEP, UK, G/CFD-30L)	
114	3-380-074-11	KNOB, CD EJECT (BLACK)	
114	3-380-074-21	KNOB, CD EJECT (BLUE) (CFD-20L:AEP, UK, G/CFD-30L)	
115	3-380-719-01	SPRING, CD EJECT	
116	3-380-064-01	KNOB, VOLUME (WHITE) (CFD-20L:AEP, UK, G/CFD-30L)	
116	3-380-064-21	KNOB, VOLUME (BLUE) (CFD-20L:AEP, UK, G/CFD-30L)	
116	3-380-064-11	KNOB, VOLUME (BLACK)	
117	3-380-063-01	KNOB, TONE (WHITE) (CFD-20LAEP, UK, G/CFD-30L)	
117	3-380-063-11	KNOB, TONE (BLACK)	
117	3-380-063-21	KNOB, TONE (BLUE) (CFD-20L:AEP, UK, G/CFD-30L)	
118	3-380-071-01	KNOB, LEVER (TOP) (WHITE) (CFD-20L:AEP, UK, G/CFD-30L)	
118	3-380-071-11	KNOB, LEVER (TOP) (BLACK)	
118	3-380-071-21	KNOB, LEVER (TOP) (BLUE) (CFD-20L:AEP, UK, G/CFD-30L)	
119	3-380-136-41	CABINET (REAR) (BLACK)	
119	3-380-136-31	CABINET (REAR) (WHITE) (CFD-20L:AEP, UK, G/CFD-30L)	
119	3-380-136-51	CABINET (REAR) (BLUE) (CFD-20L:AEP, UK, G/CFD-30L)	
119	3-381-136-31	CABINET (REAR) (WHITE) (CFD-20L:AEP, UK, G/CFD-30L)	
119	3-381-136-41	CABINET (REAR) (BLACK)	
119	3-381-136-51	CABINET (REAR) (BLUE) (CFD-20L:AEP, UK, G/CFD-30L)	
* 120	A-3262-717-A	TUNER BOARD, COMPLETE	
121	3-380-075-01	PULLEY, GEAR	
122	3-380-722-01	DAMPER, CD	
123	1-644-514-11	CD LEAF SW BOARD	
124	3-380-714-01	SPRING, CD COVER	
125	3-380-725-11	CHASSIS, CD (BLACK)	
125	3-380-725-01	CHASSIS, CD (WHITE) (CFD-20L:AEP, UK, G/CFD-30L)	
125	3-380-725-21	CHASSIS, CD (BLUE) (CFD-20L:AEP, UK, G/CFD-30L)	
126	3-380-083-01	LEVER, CD EJECT	
* CNP102	1-695-174-11	CONNECTOR 4P (CFD-20L)	
* CNP110	1-695-562-11	CONNECTOR 6P (CFD-30L)	
* CNP110	1-695-563-11	CONNECTOR 4P (CFD-20L)	
* CNP701	1-695-170-11	CONNECTOR 8P	
* CNP702	1-695-150-11	CONNECTOR 8P	
* CNP804	1-695-143-11	CONNECTOR 2P	

7-4. MECHANISM DECK SECTION-1 (CFD-20L)
(MF-CFD-20 : YM27X-407)

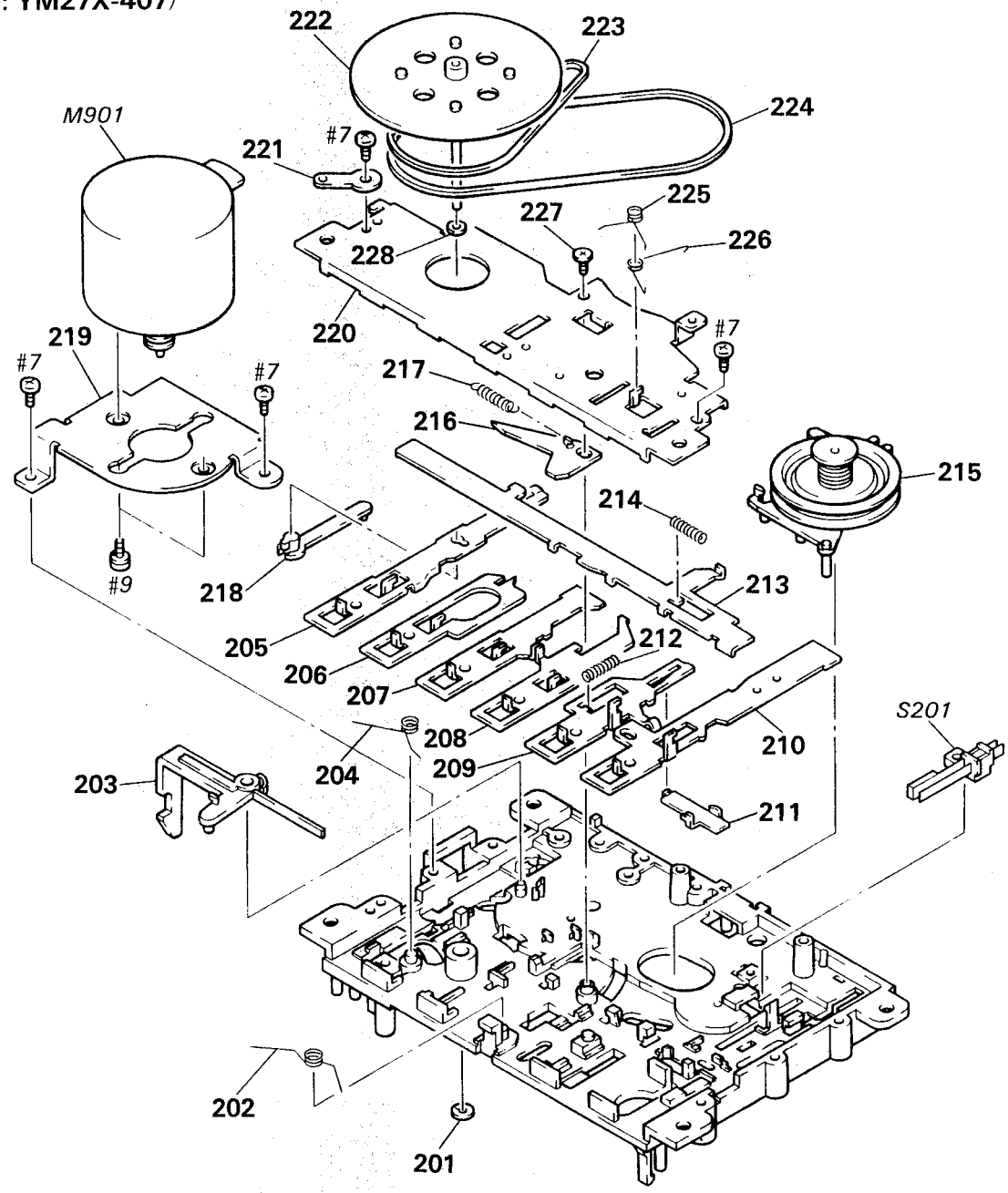


Ref.No.	Part No.	Description	Remark
151	3-391-055-01	E HEAD ARM	
* 152	4-895-015-01	HEAD BASE	
153	4-895-016-01	TAPE GUIDE	
154	4-894-956-01	TAPE SENSOR	
155	4-894-955-01	C SPRING	
156	3-390-823-01	WASHER, F	
157	3-390-817-01	LUG	
158	3-391-078-01	PINCH SPRING	
159	3-390-803-01	BUSHING (D)	
160	4-894-953-01	REEL	
161	4-894-954-01	C SPRING	
162	4-894-960-01	BUSH	

Ref.No.	Part No.	Description	Remark
163	4-894-961-01	IDLER GEAR	
164	4-894-962-01	IDLER ARM	
165	4-894-964-01	F GEAR	
166	X-3391-004-1	T REEL ASSY	
* 167	3-390-838-01	SHAFT (W), BUTTON	
168	4-894-958-01	INTERLOCK ARM	
169	3-390-805-01	PINCH ARM ASSY	
170	4-894-966-01	SPRING	
171	4-894-968-01	CHASSIS ASSY	
172	4-894-967-01	SPRING	
HE901	1-543-558-11	ERASE HEAD	
HRP901	1-543-424-21	REC/PB HEAD	

7-5. MECHANISM DECK SECTION-2 (CFD-20L)

(MF-CFD-20
: YM27X-407)

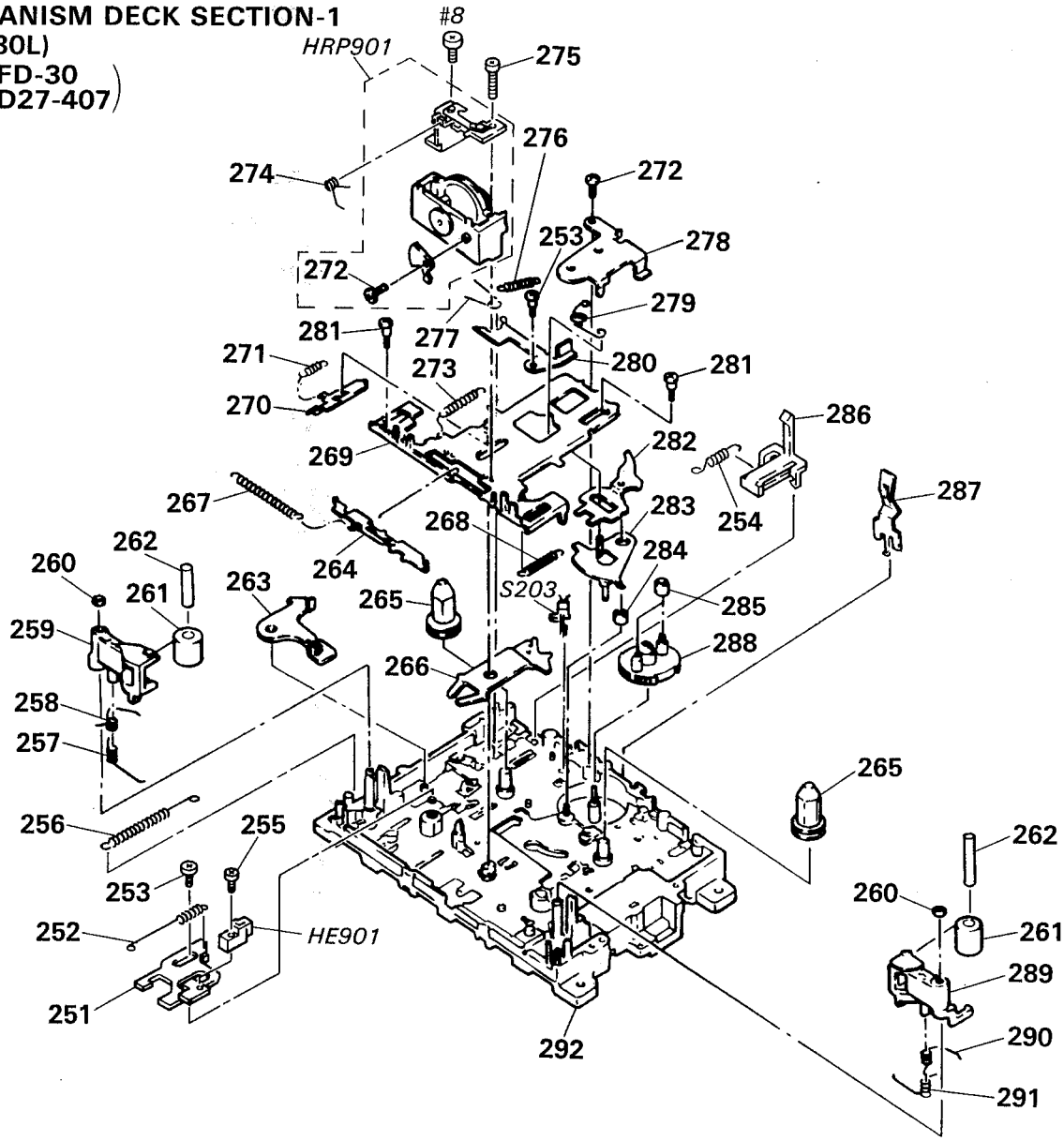


Ref. No.	Part No.	Description	Remark
201	4-894-969-01	N WASHER	
202	4-894-999-01	SPRING	
203	4-894-980-01	EJECT ARM	
204	4-894-989-01	SPRING	
* 205	4-894-986-01	PAUSE LEVER	
* 206	4-894-987-01	S.E LEVER	
* 207	3-391-052-01	FF LEVER	
* 208	3-391-051-01	REW LEVER	
* 209	3-391-053-01	PLAY LEVER	
210	4-894-994-01	REC LEVER	
211	3-390-811-01	LEVER, REC STOP	
212	3-390-827-01	SPRING	
* 213	4-894-984-01	FUNCTION LEVER	
214	4-894-983-01	C SPRING	
215	X-3391-003-1	POWER ARM ASSY	

Ref. No.	Part No.	Description	Remark
216	4-894-982-01	ARM	
217	3-390-809-01	SPRING	
218	4-894-985-01	PAUSE ARM	
* 219	3-391-071-01	PLATE, MOTOR	
* 220	4-894-977-01	BACK PLATE	
221	3-391-047-01	EARTH LUG	
222	X-3391-002-1	FLYWHEEL ASSY	
223	3-395-914-01	BELT, SQUARE	
224	3-561-892-00	BELT, SQUARE	
225	4-894-978-01	SPRING	
226	3-369-935-01	SPRING, REC	
227	3-390-822-01	BUSHING (C)	
228	4-894-976-01	P WASHER	
M901	3-379-148-01	MOTOR ASSY (REEL/CAPSTAN)	
S201	1-572-394-11	SWITCH, LEAF (MAIN)	

7-6. MECHANISM DECK SECTION-1

(CFD-30L)
(MF-CFD-30 :LRD27-407)

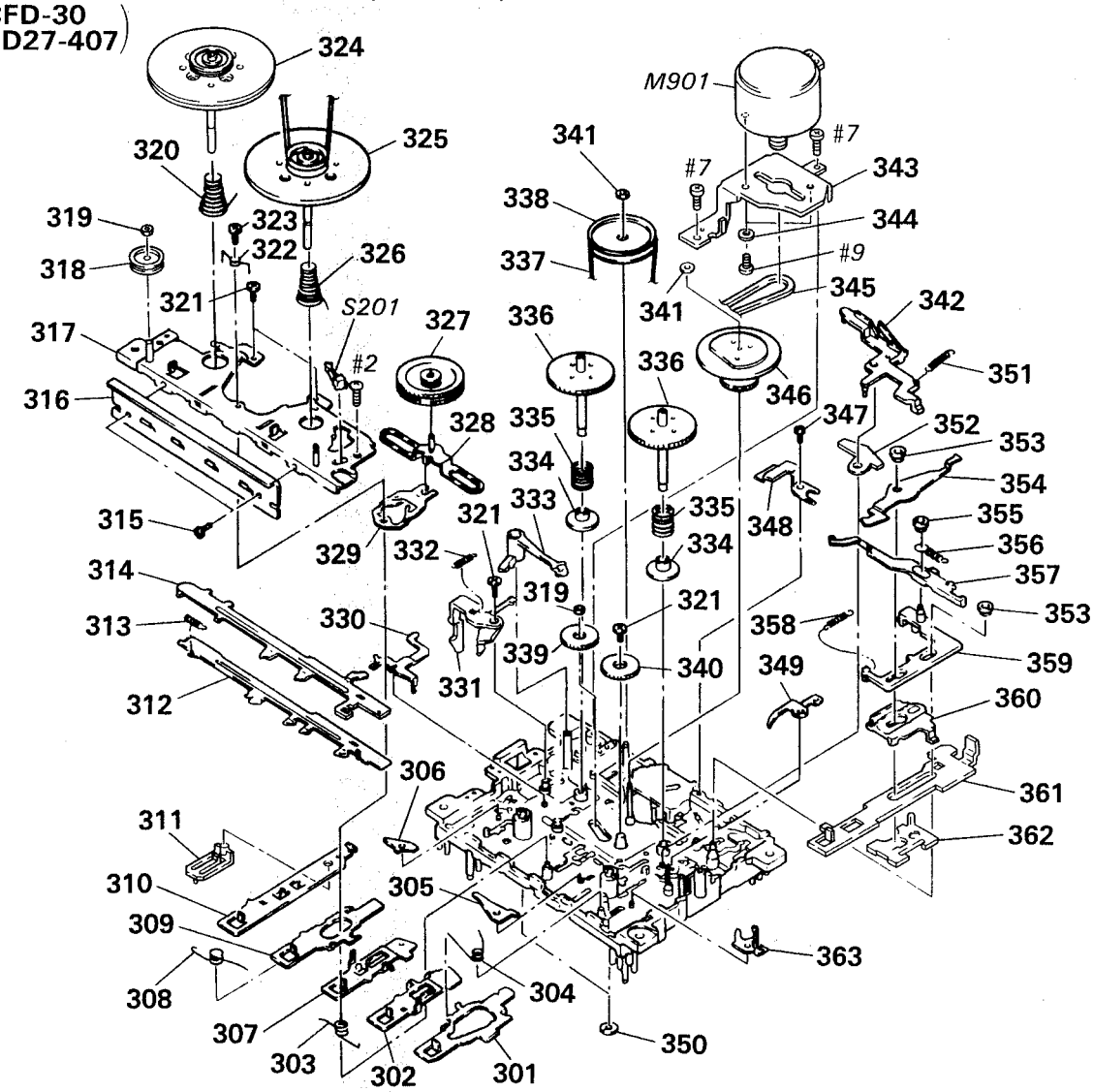


Ref. No.	Part No.	Description	Remark
* 251	3-379-191-01	HOLDER ERASE	
252	3-379-193-01	SPRING	
253	3-396-808-01	SCREW	
254	3-382-201-01	SPRING	
255	3-379-190-01	SCREW	
256	3-379-196-01	SPRING	
257	3-393-152-01	SPRING	
258	3-393-153-01	SPRING	
259	3-393-112-01	ARM PINCH-L	
260	3-393-227-01	WASHER	
261	3-393-149-01	ROLLER PINCH	
262	3-393-113-01	SHAFT	
* 263	3-369-951-01	PLATE, PROTECT REC	
* 264	3-369-937-01	PLATE ASSY, SLIDE	
265	3-391-086-01	CAP RELL	
* 266	3-391-090-01	PLATE REVERSE-C	
267	3-393-106-01	SPRING	
268	3-391-095-01	SPRING	
269	X-3391-009-1	ASSY HEAD CHASSIS	
* 270	3-369-941-01	LEVER, GEAR STOP	
271	3-369-942-01	SPRING	
272	4-894-960-01	BUSH	
273	3-391-096-01	SPRING	

Ref. No.	Part No.	Description	Remark
274	3-393-105-01	SPRING	
275	3-393-218-01	SCREW	
276	3-391-093-01	SPRING	
277	3-391-094-01	SPRING	
278	3-393-109-01	HOLDER GEAR	
279	3-363-223-01	SPRING	
* 280	3-391-092-01	PLATE MO JOINT	
281	3-393-221-01	SCREW	
* 282	3-391-091-01	PLATE REVERSE-D	
283	X-3391-008-1	ASSY IDLER PLATE	
284	3-369-952-01	COLLAR	
285	3-391-089-01	COLLER B	
286	4-894-958-01	INTERLOCK ARM	
287	3-393-209-01	PLATE SPRING	
288	X-3391-007-1	ASSY REVERSE GEAR C	
289	3-393-111-01	ARM PINCH-R	
290	3-393-151-01	SPRING	
291	3-393-150-01	SPRING	
* 292	X-3365-057-1	ASSY MECHA CHASSIS	
HE901	3-379-192-01	ERASE HEAD ASSY	
HRP901	X-3365-055-1	REC/PB HEAD ASSY	
S203	1-571-745-11	SWITCH, LEAF (FWD/RVS)	

7-7. MECHANISM DECK SECTION-2 (CFD-30L)

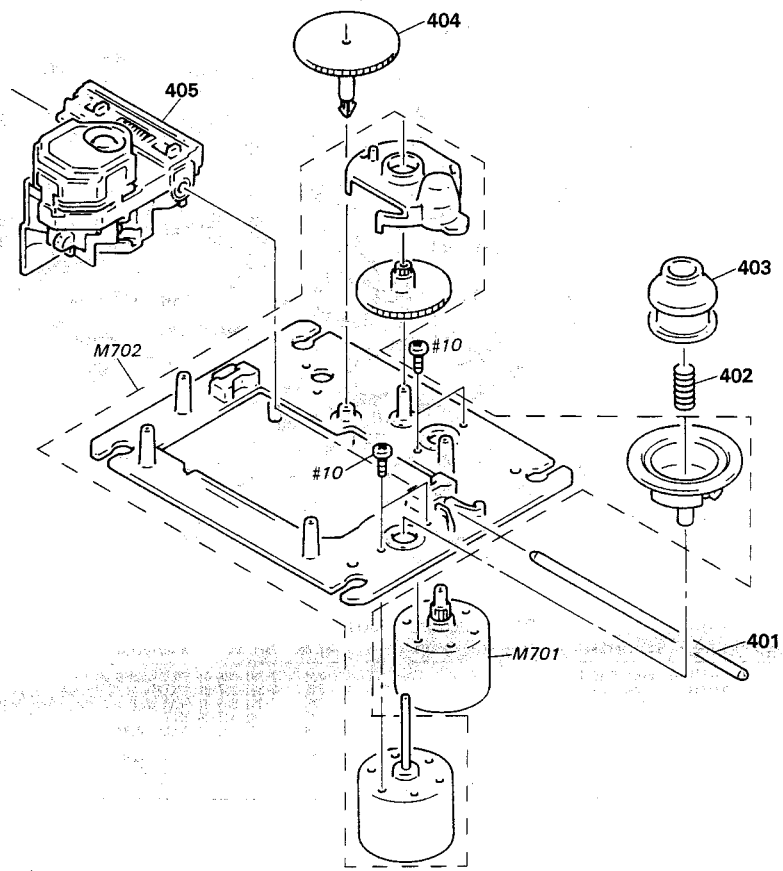
(MF-CFD-30 :LRD27-407)



Ref. No.	Part No.	Description	Remark
* 301	3-393-171-01	LEVER PLAY B	
* 302	3-369-944-01	LEVER, REW	
303	3-393-165-01	SPRING	
304	3-393-167-01	SPRING	
305	3-393-170-01	ARM CUE STOP	
306	3-393-158-01	ARM PAUSE	
* 307	3-369-943-01	LEVER, FF	
308	3-393-159-01	SPRING	
309	3-393-160-01	LEVER STOP	
310	3-393-156-01	LEVER PAUSE	
311	3-393-157-01	ARM PAUSE STOP	
* 312	3-369-945-01	PLATE, FUNCTION (A)	
313	3-393-175-01	SPRING	
* 314	3-379-176-01	PLATE FUNCTION-B	
315	3-396-801-01	SCREW	
* 316	3-396-800-01	HOLDER	
* 317	X-3391-013-1	ASSY LEVER HOLDER C	
* 318	3-369-948-01	PULLEY	
319	3-393-225-01	WASHER	
320	3-393-206-01	SPRING	
321	4-894-960-01	BUSH	
322	3-382-202-01	SPRING	
323	3-393-221-01	SCREW	
324	X-3365-056-1	ASSY FLYWHEEL F	
325	X-3391-018-1	ASSY FLYWHEEL R	
326	3-393-205-01	SPRING	
327	X-3391-016-1	ASSY FF TENTION A	
328	X-3391-012-1	ASSY FF IDLER PLATE	
329	3-393-176-01	LEVER FF IDLER	
330	3-393-155-01	PLATE SENSER STOP	
331	3-396-773-01	LEVER EJECT	
332	3-393-179-01	SPRING	
333	3-393-190-01	ARM SENSER STOP	

Ref. No.	Part No.	Description	Remark
334	3-391-088-01	REEL BUSH-D	
335	3-391-087-01	SPRING	
336	3-391-085-01	GEAR RELL	
337	3-681-447-00	BELT	
338	3-393-191-01	PULLY DRIVE	
339	3-393-154-01	GEAR IDLER	
340	3-391-084-01	GEAR FWD	
341	3-393-226-01	WASHER	
* 342	3-393-182-01	LEVER DR	
* 343	3-379-180-01	HOLDER MOTOR	
344	3-379-181-01	WASHER NYLON	
345	3-379-150-01	BELT	
346	X-3391-015-1	ASSY TENTION	
347	3-396-791-01	SCREW	
348	3-396-790-01	PLATE SPRING DR	
349	3-393-169-01	PLATE SWITCH-C	
350	4-894-969-01	N WASHER	
351	3-393-177-01	SPRING	
* 352	3-379-195-01	ARM REC	
353	3-393-189-01	BUSH	
* 354	3-379-179-01	LEVER CANCEL	
355	3-379-197-01	BUSH	
356	3-379-178-01	SPRING	
* 357	3-393-185-01	LEVER SENSER-B	
358	3-393-187-01	SPRING	
* 359	3-393-184-01	LEVER SENSER	
* 360	3-393-181-01	LEVER MO	
* 361	3-379-194-01	LEVER REC	
* 362	3-393-180-01	PLATE MO	
363	3-393-168-01	PLATE SWITCH-A	
M901	3-379-149-01	MOTOR ASSY (REEL/CAPSTAN)	
S201	1-571-556-11	SWITCH, LEAF (MAIN)	

7-8. OPTICAL PICKUP BLOCK (KSM-2101BAM)



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Ref.No.	Part No.	Description	Remark
401	4-917-565-01	SHAFT (K), SLED	
402	2-625-191-01	SPRING (K), COMPRESSION	
403	2-625-186-01	RING (C) (K), CENTER	
404	2-625-188-02	GEAR (A) (K)	
⚠405	8-848-137-11	PICK UP, OPTICAL KSS-210B	
M701	X-2625-132-1	MOTOR GEAR ASSY (MB) (SLED)	
M702	X-2625-133-2	MOTOR ASSY, SPINDLE(TT CHASSIS ASSY (MB))	

SECTION 8
ELECTRICAL PARTS LIST

AUDIO

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u:μ, for example:
  uA..: μA.. uPA..: μPA..
  uPB..: μPB.. uPC..: μPC.. uPD..: μPD..
- CAPACITORS
  uF: μF
- COILS
  uH: μH

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

- Abbreviations
  G :Germany model
  IT : Italian model

Ref.No.	Part No.	Description			Remark
*	A-3275-525-A	AUDIO BOARD, COMPLETE (CFD-20L)			
*	A-3275-524-A	AUDIO BOARD, COMPLETE (CFD-30L)			
		**********			
		< CAPACITOR >			
C101	1-124-126-00	ELECT	47uF	20% 10V	
C102	1-162-291-31	CERAMIC	560PF	10% 50V	
C103	1-130-488-00	MYLAR	0.027uF	5% 50V	
C104	1-162-291-31	CERAMIC	560PF	10% 50V	
C105	1-130-473-00	MYLAR	0.0015uF	5% 50V	
C106	1-124-925-11	ELECT	2.2uF	20% 100V	
C107	1-124-903-11	ELECT	1uF	20% 50V	
C108	1-162-292-31	CERAMIC	680PF	10% 50V	
C109	1-130-486-00	MYLAR	0.018uF	10% 50V	
C110	1-162-215-31	CERAMIC	47PF	5% 50V	
C114	1-162-282-31	CERAMIC	100PF	10% 50V	
C117	1-162-292-31	CERAMIC	680PF	10% 50V	
C121	1-162-282-31	CERAMIC	100PF	10% 50V	
C122	1-124-903-11	ELECT	1uF	20% 50V	
C123	1-124-903-11	ELECT	1uF	20% 50V	
C124	1-162-282-31	CERAMIC	100PF	10% 50V	
C125	1-124-903-11	ELECT	1uF	20% 50V	
C126	1-124-903-11	ELECT	1uF	20% 50V	
C139	1-162-286-31	CERAMIC	220PF	10% 50V	
C201	1-162-282-31	CERAMIC	100PF	10% 50V	
C202	1-124-903-11	ELECT	1uF	20% 50V	
C203	1-126-157-11	ELECT	10uF	20% 16V	
C205	1-124-927-11	ELECT	4.7uF	20% 100V	
C206	1-124-907-11	ELECT	10uF	20% 50V	
C207	1-124-907-11	ELECT	10uF	20% 50V	
C208	1-124-443-00	ELECT	100uF	20% 10V	
C209	1-124-126-00	ELECT	47uF	20% 10V	
C210	1-161-377-00	CERAMIC	0.0047uF	30% 16V	
C211	1-130-487-00	MYLAR	0.022uF	5% 50V	

Ref.No.	Part No.	Description			Remark
C212	1-130-471-00	MYLAR	0.001uF	5% 50V	
C213	1-124-443-00	ELECT	100uF	20% 10V	
C214	1-162-286-31	CERAMIC	220PF	10% 50V	
C215	1-162-290-31	CERAMIC	470PF	10% 50V	
C216	1-130-471-00	MYLAR	0.001uF	5% 50V	
C217	1-126-233-11	ELECT	22uF	20% 50V	
C219	1-124-443-00	ELECT	100uF	20% 10V	
C220	1-123-382-00	ELECT	3.3uF	20% 100V	
C221	1-126-233-11	ELECT	22uF	20% 50V	
C222	1-126-233-11	ELECT	22uF	20% 50V	
C226	1-124-907-11	ELECT	10uF	20% 50V	
C230	1-124-443-00	ELECT	100uF	20% 10V	
C247	1-126-157-11	ELECT	10uF	20% 16V	
C255	1-161-379-00	CERAMIC	0.01uF	20% 25V	
C301	1-124-126-00	ELECT	47uF	20% 10V	
C302	1-162-291-31	CERAMIC	560PF	10% 50V	
C303	1-130-488-00	MYLAR	0.027uF	5% 50V	
C304	1-162-291-31	CERAMIC	560PF	10% 50V	
C305	1-130-473-00	MYLAR	0.0015uF	5% 50V	
C306	1-124-925-11	ELECT	2.2uF	20% 100V	
C307	1-124-903-11	ELECT	1uF	20% 50V	
C308	1-162-292-31	CERAMIC	680PF	10% 50V	
C309	1-130-486-00	MYLAR	0.018uF	10% 50V	
C310	1-162-215-31	CERAMIC	47PF	5% 50V	
C314	1-162-282-31	CERAMIC	100PF	10% 50V	
C317	1-162-292-31	CERAMIC	680PF	10% 50V	
C321	1-162-282-31	CERAMIC	100PF	10% 50V	
C322	1-124-903-11	ELECT	1uF	20% 50V	
C323	1-124-903-11	ELECT	1uF	20% 50V	
C324	1-162-282-31	CERAMIC	100PF	10% 50V	
C325	1-124-903-11	ELECT	1uF	20% 50V	
C326	1-124-903-11	ELECT	1uF	20% 50V	
C339	1-162-286-31	CERAMIC	220PF	10% 50V	

AUDIO

Ref.No.	Part No.	Description	Remark
		< CONNECTOR >	
* CN101	1-580-047-11	CONNECTOR 3P	
* CN102	1-580-048-11	CONNECTOR 4P (CFD-20L)	
* CN102	1-573-597-11	CONNECTOR 3P (CFD-30L)	
* CN103	1-695-145-11	CONNECTOR 5P	
* CN104	1-695-144-11	CONNECTOR 13P	
* CN106	1-695-055-11	HOUSING, CONNECTOR 6P	
* CN107	1-695-055-11	HOUSING, CONNECTOR 6P	
* CN109	1-695-146-11	CONNECTOR 3P	
* CN110	1-580-048-11	CONNECTOR 4P (CFD-20L)	
* CN110	1-695-139-11	CONNECTOR 6P (CFD-30L)	
		< DIODE >	
D205	8-719-200-02	DIODE 10E2	
D206	8-719-107-94	DIODE 1SS202-1	
D207	8-719-107-94	DIODE 1SS202-1	
D208	8-719-107-94	DIODE 1SS202-1	
		< IC >	
IC201	8-759-231-22	IC TA7417AP	
IC202	8-759-108-41	IC uPC4570C	
IC203	8-759-076-52	IC GL4558	
		< JACK >	
J203	1-563-330-11	JACK (MIX MIC)	
		< COIL >	
L201	1-410-322-11	INDUCTOR 3.3uH	
L202	1-410-515-11	INDUCTOR 33uH	
		< TRANSISTOR >	
Q101	8-729-016-64	TRANSISTOR KTD1302	
Q202	8-729-900-80	TRANSISTOR DTC114ES	
Q203	8-729-900-61	TRANSISTOR DTA114ES	
Q204	8-729-900-80	TRANSISTOR DTC114ES	
Q205	8-729-900-80	TRANSISTOR DTC114ES	
Q206	8-729-900-80	TRANSISTOR DTC114ES	
Q207	8-729-900-61	TRANSISTOR DTA114ES	
Q208	8-729-900-80	TRANSISTOR DTC114ES	
Q209	8-729-142-46	TRANSISTOR 2SC2001-LK	
Q301	8-729-016-64	TRANSISTOR KTD1302	
		< RESISTOR >	
R101	1-249-406-11	CARBON 120 5% 1/4W	
R102	1-249-426-11	CARBON 5.6K 5% 1/4W	
R103	1-249-440-11	CARBON 82K 5% 1/4W	
R104	1-249-432-11	CARBON 18K 5% 1/4W	
R105	1-249-427-11	CARBON 6.8K 5% 1/4W	
R106	1-249-434-11	CARBON 27K 5% 1/4W	
R108	1-249-441-11	CARBON 100K 5% 1/4W	
R109	1-249-429-11	CARBON 10K 5% 1/4W	
R110	1-249-434-11	CARBON 27K 5% 1/4W	
R112	1-249-429-11	CARBON 10K 5% 1/4W	
R113	1-249-414-11	CARBON 560 5% 1/4W	
R120	1-249-421-11	CARBON 2.2K 5% 1/4W	
R121	1-249-436-11	CARBON 39K 5% 1/4W	
R122	1-249-426-11	CARBON 5.6K 5% 1/4W	
R123	1-249-425-11	CARBON 4.7K 5% 1/4W	
R124	1-249-435-11	CARBON 33K 5% 1/4W	
R125	1-249-437-11	CARBON 47K 5% 1/4W	
R126	1-249-419-11	CARBON 1.5K 5% 1/4W	
R127	1-249-425-11	CARBON 4.7K 5% 1/4W	
R201	1-249-437-11	CARBON 47K 5% 1/4W	
R202	1-249-437-11	CARBON 47K 5% 1/4W	
R212	1-249-422-11	CARBON 2.7K 5% 1/4W	
R214	1-249-429-11	CARBON 10K 5% 1/4W	
R215	1-249-425-11	CARBON 4.7K 5% 1/4W	
R216	1-249-432-11	CARBON 18K 5% 1/4W	
R217	1-259-880-11	CARBON 2.2M 5% 1/6W	
R218	1-249-429-11	CARBON 10K 5% 1/4W	
R219	1-249-407-11	CARBON 150 5% 1/4W	
R220	1-249-393-11	CARBON 10 5% 1/4W	
R221	1-249-429-11	CARBON 10K 5% 1/4W	
R222	1-249-411-11	CARBON 330 5% 1/4W	
R223	1-249-425-11	CARBON 4.7K 5% 1/4W	
R225	1-249-417-11	CARBON 1K 5% 1/4W	
R247	1-249-437-11	CARBON 47K 5% 1/4W	
R248	1-249-437-11	CARBON 47K 5% 1/4W	
R301	1-249-406-11	CARBON 120 5% 1/4W	
R302	1-249-426-11	CARBON 5.6K 5% 1/4W	
R303	1-249-440-11	CARBON 82K 5% 1/4W	
R304	1-249-432-11	CARBON 18K 5% 1/4W	
R305	1-249-427-11	CARBON 6.8K 5% 1/4W	
R306	1-249-434-11	CARBON 27K 5% 1/4W	
R308	1-249-441-11	CARBON 100K 5% 1/4W	
R309	1-249-429-11	CARBON 10K 5% 1/4W	
R310	1-249-434-11	CARBON 27K 5% 1/4W	
R312	1-249-429-11	CARBON 10K 5% 1/4W	
R313	1-249-414-11	CARBON 560 5% 1/4W	
R320	1-249-421-11	CARBON 2.2K 5% 1/4W	
R321	1-249-436-11	CARBON 39K 5% 1/4W	
R322	1-249-426-11	CARBON 5.6K 5% 1/4W	
R323	1-249-425-11	CARBON 4.7K 5% 1/4W	
R324	1-249-435-11	CARBON 33K 5% 1/4W	
R325	1-249-437-11	CARBON 47K 5% 1/4W	
R326	1-249-419-11	CARBON 1.5K 5% 1/4W	
R327	1-249-425-11	CARBON 4.7K 5% 1/4W	

AUDIO BATTERY CD CONTROL CD LEAF SW CD MAIN

Ref.No.	Part No.	Description	Remark
		< VARIABLE RESISTOR >	
RV201	1-241-927-11	RES, VAR, CARBON 50K/50K (VOLUME)	
RV202	1-241-928-11	RES, VAR, CARBON 50K/50K (TONE)	
		< SWITCH >	
S101	1-692-173-11	SWITCH, LEVER (FUNCTION)	
S103	1-692-170-11	SWITCH, SLIDE (ISS/FM MODE)	
		< TRANSFORMER >	
T101	1-433-399-11	COIL, BIAS OSCILLATION	
	1-644-027-11	BATTERY BOARD	
	3-380-067-01	SPRING, BATT (-)	
		< CONNECTOR >	
* CN910	1-695-151-11	CONNECTOR 2P	
*	1-644-032-11	CD CONTROL BOARD	
		< CONNECTOR >	
* CN807	1-695-058-11	CONNECTOR 29P	
		< DIODE >	
D801	8-719-918-76	LED GL-3PR9 (REV) (CFD-30L)	
D802	8-719-918-76	LED GL-3PR9 (FWD)	
D803	8-719-107-94	DIODE 1SS202-1 (CFD-30L)	
		< LIQUID CRYSTAL DISPLAY >	
LCD1	1-808-930-11	DISPLAY PANEL, LIQUID CRYSTAL	
		< RESISTOR >	
R801	1-249-416-11	CARBON 820 5% 1/4W (CFD-30L)	
R802	1-249-416-11	CARBON 820 5% 1/4W	
R803	1-249-410-11	CARBON 270 5% 1/4W	
R804	1-249-410-11	CARBON 270 5% 1/4W (CFD-30L)	
		< SWITCH >	
S801	1-692-178-11	SWITCH, TACT (PLAY)	
S802	1-692-178-11	SWITCH, TACT (STOP)	
S803	1-692-178-11	SWITCH, TACT (REW)	
S804	1-692-178-11	SWITCH, TACT (FF)	
S805	1-692-178-11	SWITCH, TACT (PAUSE)	
S806	1-692-178-11	SWITCH, TACT (PLAY MODE)	
S807	1-692-178-11	SWITCH, TACT (REMAIN/ENTER)	
	1-644-031-11	CD LEAF SW BOARD	
		< CONNECTOR >	
CN804	1-695-143-11	CONNECTOR 2P	
		< SWITCH >	
S801	1-692-171-11	SWITCH (DOOR)	
*	A-3275-519-A	CD MAIN BOARD, COMPLETE	
		< CAPACITOR >	
C700	1-162-197-31	CERAMIC 6.8PF 10% 50V	
C701	1-161-375-00	CERAMIC 0.0022uF 20% 50V	
C702	1-124-034-51	ELECT 33uF 20% 16V	
C703	1-124-443-00	ELECT 100uF 20% 10V	
C704	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C705	1-130-489-00	MYLAR 0.033uF 5% 50V	
C706	1-124-443-00	ELECT 100uF 20% 10V	
C707	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C708	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C709	1-130-489-00	MYLAR 0.033uF 5% 50V	
C710	1-161-377-00	CERAMIC 0.0047uF 30% 16V	
C711	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C712	1-161-375-00	CERAMIC 0.0022uF 20% 50V	
C713	1-130-491-00	MYLAR 0.047uF 5% 50V	
C714	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C715	1-161-329-00	CERAMIC 0.0068uF 30% 16V	
C716	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C717	1-126-157-11	ELECT 10uF 20% 16V	
C718	1-130-493-00	MYLAR 0.068uF 5% 50V	
C719	1-162-284-31	CERAMIC 150PF 10% 50V	
C720	1-162-215-31	CERAMIC 47PF 5% 50V	
C722	1-124-034-51	ELECT 33uF 20% 16V	
C723	1-130-495-00	MYLAR 0.1uF 5% 50V	
C724	1-124-034-51	ELECT 33uF 20% 16V	
C725	1-126-157-11	ELECT 10uF 20% 16V	
C726	1-130-495-00	MYLAR 0.1uF 5% 50V	
C727	1-130-495-00	MYLAR 0.1uF 5% 50V	
C728	1-124-034-51	ELECT 33uF 20% 16V	
C729	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C730	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C731	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C732	1-161-379-00	CERAMIC 0.01uF 20% 25V	

Ref.No.	Part No.	Description			Remark
C733	1-124-034-51	ELECT	33uF	20%	16V
C734	1-124-034-51	ELECT	33uF	20%	16V
C735	1-124-902-00	ELECT	0.47uF	20%	50V
C736	1-124-034-51	ELECT	33uF	20%	16V
C737	1-130-489-00	MYLAR	0.033uF	5%	50V
C738	1-124-927-11	ELECT	4.7uF	20%	100V
C739	1-124-903-11	ELECT	1uF	20%	50V
C740	1-161-379-00	CERAMIC	0.01uF	20%	25V
C741	1-161-379-00	CERAMIC	0.01uF	20%	25V
C742	1-124-902-00	ELECT	0.47uF	20%	50V
C743	1-161-379-00	CERAMIC	0.01uF	20%	25V
C744	1-124-472-11	ELECT	470uF	20%	10V
C745	1-162-207-31	CERAMIC	22PF	5%	50V
C746	1-162-207-31	CERAMIC	22PF	5%	50V
C747	1-126-176-11	ELECT	220uF	20%	10V
C748	1-161-379-00	CERAMIC	0.01uF	20%	25V
C749	1-162-219-31	CERAMIC	68PF	5%	50V
C750	1-162-219-31	CERAMIC	68PF	5%	50V
C751	1-162-294-31	CERAMIC	0.001uF	10%	50V
C752	1-124-443-00	ELECT	100uF	20%	10V
C753	1-162-199-31	CERAMIC	10PF	5%	50V
C754	1-162-199-31	CERAMIC	10PF	5%	50V
C755	1-124-903-11	ELECT	1uF	20%	50V
C756	1-124-360-00	ELECT	1000uF	20%	16V
C757	1-162-292-31	CERAMIC	680PF	10%	50V
C758	1-162-215-31	CERAMIC	47PF	5%	50V
C759	1-162-215-31	CERAMIC	47PF	5%	50V
C760	1-124-443-00	ELECT	100uF	20%	10V
C762	1-162-294-31	CERAMIC	0.001uF	10%	50V
C763	1-161-379-00	CERAMIC	0.01uF	20%	25V
C764	1-124-443-00	ELECT	100uF	20%	10V
C765	1-162-282-31	CERAMIC	100PF	10%	50V
C766	1-162-282-31	CERAMIC	100PF	10%	50V
C767	1-161-379-00	CERAMIC	0.01uF	20%	25V
C768	1-161-379-00	CERAMIC	0.01uF	20%	25V
C769	1-161-379-00	CERAMIC	0.01uF	20%	25V
C770	1-161-379-00	CERAMIC	0.01uF	20%	25V
C771	1-124-903-11	ELECT	1uF	20%	50V
C772	1-124-903-11	ELECT	1uF	20%	50V
C773	1-161-375-00	CERAMIC	0.0022uF	20%	50V
C774	1-161-375-00	CERAMIC	0.0022uF	20%	50V
C775	1-162-294-31	CERAMIC	0.001uF	10%	50V
C776	1-162-294-31	CERAMIC	0.001uF	10%	50V
C777	1-162-215-31	CERAMIC	47PF	5%	50V
C778	1-162-215-31	CERAMIC	47PF	5%	50V
C779	1-124-443-00	ELECT	100uF	20%	10V
C780	1-124-903-11	ELECT	1uF	20%	50V
C781	1-124-903-11	ELECT	1uF	20%	50V
C782	1-124-443-00	ELECT	100uF	20%	10V

Ref.No.	Part No.	Description			Remark
C783	1-126-157-11	ELECT	10uF	20%	16V
C784	1-126-157-11	ELECT	10uF	20%	16V
C785	1-130-493-00	MYLAR	0.068uF	5%	50V
C786	1-130-493-00	MYLAR	0.068uF	5%	50V
C787	1-124-903-11	ELECT	1uF	20%	50V
		< CONNECTOR >			
* CN701	1-695-138-11	CONNECTOR 8P			
* CN702	1-695-137-11	CONNECTOR 8P			
* CN703	1-695-152-11	CONNECTOR 6P			
* CN704	1-580-046-11	CONNECTOR 2P			
* CN705	1-695-056-11	PLUG, CONNECTOR 6P			
* CN706	1-695-056-11	PLUG, CONNECTOR 6P			
* CN707	1-695-058-11	CONNECTOR 29P			
		< DIODE >			
D701	8-719-107-94	DIODE	1SS202-1		
D702	8-719-107-94	DIODE	1SS202-1		
D703	8-719-107-94	DIODE	1SS202-1		
D704	8-719-107-94	DIODE	1SS202-1		
D705	8-719-107-94	DIODE	1SS202-1		
D706	8-719-107-94	DIODE	1SS202-1		
D707	8-719-107-94	DIODE	1SS202-1		
D708	8-719-107-94	DIODE	1SS202-1		
		< IC >			
IC701	8-752-055-04	IC	CXA1081S		
IC702	8-752-032-30	IC	CXA1182BS		
IC703	8-752-328-46	IC	CXD1130Q		
IC704	8-759-076-43	IC	GM76C28		
IC705	8-752-819-88	IC	CXP5084-624Q		
IC706	8-759-501-65	IC	BA6294		
IC707	8-759-501-65	IC	BA6294		
IC708	8-759-148-89	IC	uPD6376CX		
IC709	8-759-076-52	IC	GL4558		
IC710	8-759-076-44	IC	KIA7039P		
IC712	8-759-076-52	IC	GL4558		
		< TRANSISTOR >			
Q701	8-729-201-53	TRANSISTOR	2SA1015-GR		
Q702	8-729-206-21	TRANSISTOR	RN1203		
Q703	8-729-206-21	TRANSISTOR	RN1203		
Q704	8-729-281-53	TRANSISTOR	2SC1815-GR		
Q705	8-729-206-28	TRANSISTOR	RN1210		
Q706	8-729-900-63	TRANSISTOR	DTA124ES		
Q708	8-729-201-53	TRANSISTOR	2SA1015-GR		
Q751	8-729-206-28	TRANSISTOR	RN1210		
Q752	8-729-206-28	TRANSISTOR	RN1210		
Q753	8-729-206-28	TRANSISTOR	RN1210		

CFD-20L/30L

CD MAIN

Ref.No.	Part No.	Description			Remark
Q754	8-729-206-28	TRANSISTOR	RN1210		
Q755	8-729-900-63	TRANSISTOR	DTA124ES		
Q756	8-729-281-53	TRANSISTOR	2SC1815-GR		
Q757	8-729-900-63	TRANSISTOR	DTA124ES		
Q758	8-729-206-28	TRANSISTOR	RN1210		
		< RESISTOR >			
R701	1-249-433-11	CARBON	22K	5%	1/4W
R702	1-249-417-11	CARBON	1K	5%	1/4W
R703	1-249-433-11	CARBON	22K	5%	1/4W
R704	1-249-417-11	CARBON	1K	5%	1/4W
R706	1-249-417-11	CARBON	1K	5%	1/4W
R707	1-247-883-00	CARBON	150K	5%	1/4W
R708	1-249-429-11	CARBON	10K	5%	1/4W
R709	1-249-441-11	CARBON	100K	5%	1/4W
R710	1-249-437-11	CARBON	47K	5%	1/4W
R711	1-249-438-11	CARBON	56K	5%	1/4W
R712	1-247-885-00	CARBON	180K	5%	1/4W
R713	1-249-441-11	CARBON	100K	5%	1/4W
R715	1-249-429-11	CARBON	10K	5%	1/4W
R716	1-249-441-11	CARBON	100K	5%	1/4W
R717	1-247-895-00	CARBON	470K	5%	1/4W
R718	1-249-437-11	CARBON	47K	5%	1/4W
R719	1-247-886-11	CARBON	200K	5%	1/4W
R720	1-249-422-11	CARBON	2.7K	5%	1/4W
R721	1-249-428-11	CARBON	8.2K	5%	1/4W
R722	1-247-903-00	CARBON	1M	5%	1/4W
R723	1-249-421-11	CARBON	2.2K	5%	1/4W
R724	1-249-417-11	CARBON	1K	5%	1/4W
R725	1-249-425-11	CARBON	4.7K	5%	1/4W
R726	1-249-435-11	CARBON	33K	5%	1/4W
R727	1-249-437-11	CARBON	47K	5%	1/4W
R728	1-249-429-11	CARBON	10K	5%	1/4W
R729	1-249-441-11	CARBON	100K	5%	1/4W
R730	1-249-425-11	CARBON	4.7K	5%	1/4W
R731	1-249-435-11	CARBON	33K	5%	1/4W
R732	1-249-429-11	CARBON	10K	5%	1/4W
R733	1-249-441-11	CARBON	100K	5%	1/4W
R734	1-249-405-11	CARBON	100	5%	1/4W
R735	1-249-437-11	CARBON	47K	5%	1/4W
R736	1-249-437-11	CARBON	47K	5%	1/4W
R737	1-249-417-11	CARBON	1K	5%	1/4W
R738	1-249-437-11	CARBON	47K	5%	1/4W
R739	1-249-405-11	CARBON	100	5%	1/4W
R740	1-249-441-11	CARBON	100K	5%	1/4W
R741	1-249-405-11	CARBON	100	5%	1/4W
R742	1-249-441-11	CARBON	100K	5%	1/4W
R743	1-249-441-11	CARBON	100K	5%	1/4W
R744	1-249-435-11	CARBON	33K	5%	1/4W

Ref.No.	Part No.	Description			Remark
R745	1-249-435-11	CARBON	33K	5%	1/4W
R746	1-249-435-11	CARBON	33K	5%	1/4W
R747	1-249-410-11	CARBON	270	5%	1/4W
R748	1-249-429-11	CARBON	10K	5%	1/4W
R751	1-247-806-11	CARBON	91	5%	1/4W
R752	1-249-397-11	CARBON	22	5%	1/4W
R753	1-249-405-11	CARBON	100	5%	1/4W
R754	1-249-435-11	CARBON	33K	5%	1/4W
R755	1-247-876-11	CARBON	75K	5%	1/4W
R756	1-215-457-00	METAL	33K	1%	1/6W
R757	1-215-453-00	METAL	22K	1%	1/6W
R758	1-215-457-00	METAL	33K	1%	1/6W
R759	1-215-453-00	METAL	22K	1%	1/6W
R760	1-249-417-11	CARBON	1K	5%	1/4W
R761	1-247-893-11	CARBON	390K	5%	1/4W
R762	1-215-453-00	METAL	22K	1%	1/6W
R763	1-215-457-00	METAL	33K	1%	1/6W
R764	1-215-453-00	METAL	22K	1%	1/6W
R765	1-249-436-11	CARBON	39K	5%	1/4W
R766	1-215-457-00	METAL	33K	1%	1/6W
R767	1-249-435-11	CARBON	33K	5%	1/4W
R768	1-215-429-00	METAL	2.2K	1%	1/6W
R769	1-215-433-00	METAL	3.3K	1%	1/6W
R770	1-247-895-00	CARBON	470K	5%	1/4W
R771	1-249-441-11	CARBON	100K	5%	1/4W
R772	1-249-441-11	CARBON	100K	5%	1/4W
R773	1-249-395-11	CARBON	15	5%	1/4W
R774	1-249-425-11	CARBON	4.7K	5%	1/4W
R775	1-249-425-11	CARBON	4.7K	5%	1/4W
R776	1-249-437-11	CARBON	47K	5%	1/4W
R777	1-249-437-11	CARBON	47K	5%	1/4W
R778	1-249-437-11	CARBON	47K	5%	1/4W
R779	1-249-437-11	CARBON	47K	5%	1/4W
R780	1-249-433-11	CARBON	22K	5%	1/4W
R781	1-249-433-11	CARBON	22K	5%	1/4W
R782	1-249-427-11	CARBON	6.8K	5%	1/4W
R783	1-249-429-11	CARBON	10K	5%	1/4W
R784	1-247-887-00	CARBON	220K	5%	1/4W
R785	1-247-887-00	CARBON	220K	5%	1/4W
R786	1-249-395-11	CARBON	15	5%	1/4W
R787	1-249-414-11	CARBON	560	5%	1/4W
R788	1-249-414-11	CARBON	560	5%	1/4W
R789	1-249-409-11	CARBON	220	5%	1/4W
R790	1-249-409-11	CARBON	220	5%	1/4W
R791	1-249-435-11	CARBON	33K	5%	1/4W
R792	1-249-435-11	CARBON	33K	5%	1/4W
R793	1-249-433-11	CARBON	22K	5%	1/4W
R794	1-247-895-00	CARBON	470K	5%	1/4W

CD MAIN | FINE TUNING | POWER

Ref.No.	Part No.	Description			Remark
		< VARIABLE RESISTOR >			
RV701	1-241-931-11	RES, ADJ, CARBON 22K			
RV702	1-241-931-11	RES, ADJ, CARBON 22K			
RV703	1-241-931-11	RES, ADJ, CARBON 22K			
RV704	1-241-933-11	RES, ADJ, CARBON 2.2K			
RV705	1-241-931-11	RES, ADJ, CARBON 22K			
		< VIBRATOR >			
X701	1-579-633-11	OSCILLATOR, CRYSTAL 8.4672MHz			
X702	1-579-634-11	OSCILLATOR, CERAMIC 3.58MHz			
		**********			
*	1-644-357-11	FINE TUNING BOARD			
		**********			
		< CONNECTOR >			
* CN4	1-580-047-11	CONNECTOR 3P			
		< VARIABLE RESISTOR >			
RV2	1-241-976-11	RES, VAR, CARBON 100K/100K (FINE TUNING)			
		**********			
*	A-3275-536-A	POWER BOARD, COMPLETE			
		**********			
⚠	1-533-243-11	HOLDER, FUSE			
	7-682-546-04	SCREW +PTT 3X5 (S)			
		< CAPACITOR >			
C130	1-130-495-00	MYLAR	0.1uF	5% 50V	
C181	1-124-903-11	ELECT	1uF	20% 50V	
C182	1-162-294-31	CERAMIC	0.001uF	10% 50V	
C183	1-162-288-31	CERAMIC	330PF	10% 50V	
C184	1-124-443-00	ELECT	100uF	20% 10V	
C185	1-124-893-11	ELECT	2200uF	20% 10V	
C186	1-124-443-00	ELECT	100uF	20% 10V	
C187	1-130-497-00	MYLAR	0.15uF	5% 50V	
C189	1-124-893-11	ELECT	2200uF	20% 10V	
C270	1-126-101-11	ELECT	100uF	20% 16V	
C271	1-126-101-11	ELECT	100uF	20% 16V	
C273	1-124-360-00	ELECT	1000uF	20% 16V	
C274	1-124-472-11	ELECT	470uF	20% 10V	
C330	1-130-495-00	MYLAR	0.1uF	5% 50V	
C381	1-124-903-11	ELECT	1uF	20% 50V	
C382	1-162-294-31	CERAMIC	0.001uF	10% 50V	
C383	1-162-288-31	CERAMIC	330PF	10% 50V	
C384	1-124-443-00	ELECT	100uF	20% 10V	
C385	1-124-893-11	ELECT	2200uF	20% 10V	
C386	1-124-443-00	ELECT	100uF	20% 10V	

Ref.No.	Part No.	Description			Remark
C387	1-130-497-00	MYLAR	0.15uF	5% 50V	
C389	1-124-893-11	ELECT	2200uF	20% 10V	
C901	1-161-494-00	CERAMIC	0.022uF	25V	
C902	1-161-494-00	CERAMIC	0.022uF	25V	
C903	1-161-494-00	CERAMIC	0.022uF	25V	
C904	1-161-494-00	CERAMIC	0.022uF	25V	
C905	1-124-887-00	ELECT	3300uF	20% 16V	
C965	1-130-497-00	MYLAR	0.15uF	5% 50V	
		< CONNECTOR >			
* CN204	1-695-140-11	CONNECTOR 13P			
* CN205	1-573-596-11	WAFER, CONNECTOR 4P			
* CN209	1-580-047-11	CONNECTOR 3P			
* CN901	1-695-141-11	CONNECTOR 4P			
* CN902	1-695-142-11	CONNECTOR 3P			
* CN903	1-580-046-11	CONNECTOR 2P			
		< DIODE >			
D201	8-719-989-16	DIODE 1S2472			
D202	8-719-160-34	DIODE RD6.8F-B2			
D203	8-719-989-16	DIODE 1S2472			
D204	8-719-109-89	DIODE RD5.6ES-B2			
D209	8-719-989-16	DIODE 1S2472			
⚠D901	8-719-028-07	DIODE PBM203			
		< FUSE >			
⚠F902	1-532-286-00	FUSE, GLASS TUBE (2.5A 250V)			
		< IC >			
IC204	8-759-230-13	IC TA8207K			
		< JACK >			
J202	1-507-806-00	JACK 1P			
⚠J901	1-526-838-11	INLET, AC (~AC IN)			
		< COIL >			
L101	1-410-322-11	INDUCTOR 3.3uH			
L203	1-410-515-11	INDUCTOR 33uH			
L301	1-410-322-11	INDUCTOR 3.3uH			
		< LINE FILTER >			
⚠LF901	1-424-664-11	COIL, CHOKE			
		< TRANSISTOR >			
Q210	8-729-200-38	TRANSISTOR 2SC2236-O			
Q211	8-729-283-42	TRANSISTOR 2SB834-Y			
Q212	8-729-230-79	TRANSISTOR 2SD880-YGR			

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

POWER | REC SW (RVS) | REC SW | TUNER

Ref.No.	Part No.	Description			Remark
		< RESISTOR >			
R130	1-249-423-11	CARBON	3.3K	5% 1/4W	
R181	1-249-410-11	CARBON	270	5% 1/4W	
⚠R182	1-217-639-00	FUSIBLE	2.2	5% 1/4W F	
R183	1-249-405-11	CARBON	100	5% 1/4W	
R271	1-249-417-11	CARBON	1K	5% 1/4W	
R272	1-249-408-11	CARBON	180	5% 1/4W	
R273	1-249-437-11	CARBON	47K	5% 1/4W	
R274	1-249-411-11	CARBON	330	5% 1/4W	
⚠R275	1-217-641-00	FUSIBLE	4.7	5% 1/4W F	
R330	1-249-423-11	CARBON	3.3K	5% 1/4W	
R381	1-249-410-11	CARBON	270	5% 1/4W	
⚠R382	1-217-639-00	FUSIBLE	2.2	5% 1/4W F	
R383	1-249-405-11	CARBON	100	5% 1/4W	
		< SWITCH >			
S105	1-692-179-11	SWITCH, PUSH (BASS BOOST)			
		**********			
*	1-644-449-11	REC SW (RVS) BOARD (CFD-30L)			
		**********			
		< CONNECTOR >			
* CN111	1-695-148-11	CONNECTOR 3P			
		< SWITCH >			
S202	1-692-180-11	SWITCH, PUSH (1 KEY) (REC/PB)			
		**********			
*	1-644-450-11	REC SW BOARD (CFD-20L)			
		**********			
		< CONNECTOR >			
* CN111	1-695-175-11	CONNECTOR 3P			
		< SWITCH >			
S202	1-692-180-11	SWITCH, PUSH (1 KEY) (REC/PB)			
		**********			
*	A-3275-533-A	TUNER BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C1	1-162-206-31	CERAMIC	20PF	5% 50V	
C2	1-102-958-00	CERAMIC	20PF	5% 50V	
C3	1-162-193-31	CERAMIC	3.3PF	10% 50V	
C4	1-161-379-00	CERAMIC	0.01uF	20% 25V	
C5	1-124-034-51	ELECT	33uF	20% 16V	

Ref.No.	Part No.	Description			Remark
C6	1-162-287-31	CERAMIC	270PF	10% 50V	
C7	1-124-126-00	ELECT	47uF	20% 10V	
C8	1-124-907-11	ELECT	10uF	20% 50V	
C9	1-126-101-11	ELECT	100uF	20% 16V	
C10	1-161-379-00	CERAMIC	0.01uF	20% 25V	
C11	1-124-927-11	ELECT	4.7uF	20% 100V	
C12	1-124-903-11	ELECT	1uF	20% 50V	
C13	1-130-484-00	MYLAR	0.012uF	5% 50V	
C14	1-130-484-00	MYLAR	0.012uF	5% 50V	
C15	1-124-903-11	ELECT	1uF	20% 50V	
C16	1-124-902-00	ELECT	0.47uF	20% 50V	
C17	1-124-927-11	ELECT	4.7uF	20% 100V	
C18	1-124-925-11	ELECT	2.2uF	20% 100V	
C19	1-124-463-00	ELECT	0.1uF	20% 50V	
C20	1-124-463-00	ELECT	0.1uF	20% 50V	
C21	1-162-199-31	CERAMIC	10PF	5% 50V	
C22	1-102-958-00	CERAMIC	20PF	5% 50V	
C23	1-161-374-11	CERAMIC	0.0015uF	20% 50V	
C24	1-162-218-31	CERAMIC	62PF	5% 50V	
C25	1-162-195-31	CERAMIC	4.7PF	10% 50V	
C26	1-104-060-00	POLYSTYRENE	200PF	5% 50V	
C27	1-104-067-00	POLYSTYRENE	390PF	5% 50V	
C28	1-104-288-11	POLYSTYRENE	270PF	5% 50V	
C29	1-104-236-00	POLYSTYRENE	0.0047uF	5% 125V	
C30	1-102-958-00	CERAMIC	20PF	5% 50V	
C32	1-162-282-31	CERAMIC	100PF	10% 50V	
C33	1-161-379-00	CERAMIC	0.01uF	20% 25V	
C34	1-162-193-31	CERAMIC	3.3PF	10% 50V	
C35	1-124-927-11	ELECT	4.7uF	20% 100V	
C37	1-162-217-31	CERAMIC	56PF	5% 50V	
C38	1-101-006-00	CERAMIC	0.047uF	50V	
C41	1-161-379-00	CERAMIC	0.01uF	20% 25V	
C45	1-162-286-31	CERAMIC	220PF	10% 50V	
		< FILTER >			
CF1	1-567-198-71	FILTER, CERAMIC			
CF2	1-567-163-11	FILTER, CERAMIC			
CF3	1-527-969-00	FILTER, CERAMIC			
		< CONNECTOR >			
* CN1	1-695-157-11	CONNECTOR 2P			
* CN2	1-695-261-11	CONNECTOR 3P			
* CN3	1-695-136-11	CONNECTOR 5P			
		< TRIMMER >			
CT1-4 VC1-4	1-151-637-11	CAP, VAR, POLYETHYLENE			

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

TUNER

Ref. No.	Part No.	Description	Remark
		< TRIMMER >	
CT6	1-141-232-00	CAP, TRIMMER	
CT7	1-141-227-00	CAP, TRIMMER	
CT8	1-141-232-00	CAP, TRIMMER	
CT10	1-141-245-00	CAP, TRIMMER	
		< DIODE >	
D2	8-719-107-94	DIODE 1SS202-1	
D3	8-719-918-76	LED GL-3PR9 (FM STEREO)	
		< FILTER >	
FL1	1-236-895-11	FILTER, BAND PASS	
		< IC >	
IC1	8-752-050-20	IC CXA1238S	
		< COIL >	
L1	1-460-118-11	COIL (WITH CORE)	
L2	1-406-393-11	COIL, FM OSC	
L3, L10	1-501-561-11	ANTENNA, FERRITE-ROD	
L5	1-406-253-11	COIL (OSC)	
L6	1-406-280-11	COIL (OSC)	
L7	1-406-252-11	COIL (OSC)	
L8	1-402-541-11	COIL (ANT)	
		< TRANSISTOR >	
Q1	8-729-922-66	TRANSISTOR 2SC2410SN	
Q2	8-729-016-64	TRANSISTOR KTD1302	
Q3	8-729-016-64	TRANSISTOR KTD1302	
		< RESISTOR >	
R1	1-249-441-11	CARBON 100K 5% 1/4W	
R2	1-249-414-11	CARBON 560 5% 1/4W	
R3	1-249-411-11	CARBON 330 5% 1/4W	
R4	1-249-405-11	CARBON 100 5% 1/4W	
R5	1-249-427-11	CARBON 6.8K 5% 1/4W	
R6	1-249-427-11	CARBON 6.8K 5% 1/4W	
R7	1-247-887-00	CARBON 220K 5% 1/4W	
R8	1-249-421-11	CARBON 2.2K 5% 1/4W	
R9	1-247-887-00	CARBON 220K 5% 1/4W	
R10	1-249-429-11	CARBON 10K 5% 1/4W	
R12	1-249-411-11	CARBON 330 5% 1/4W	
R16	1-249-433-11	CARBON 22K 5% 1/4W	
R17	1-249-423-11	CARBON 3.3K 5% 1/4W	
R18	1-249-417-11	CARBON 1K 5% 1/4W	
R19	1-249-417-11	CARBON 1K 5% 1/4W	
R20	1-249-441-11	CARBON 100K 5% 1/4W	
R22	1-249-415-11	CARBON 680 5% 1/4W	
R25	1-249-405-11	CARBON 100 5% 1/4W	
R29	1-249-400-11	CARBON 39 5% 1/4W	
R37	1-249-425-11	CARBON 4.7K 5% 1/4W	
R39	1-249-425-11	CARBON 4.7K 5% 1/4W	
R40	1-249-427-11	CARBON 6.8K 5% 1/4W	
R41	1-249-427-11	CARBON 6.8K 5% 1/4W	
		< VARIABLE RESISTOR >	
RV1	1-241-931-11	RES, ADJ, CARBON 22K	
		< SWITCH >	
S1	1-692-209-11	SWITCH, LEVER (BAND)	
		< TRANSFORMER >	
T1	1-404-925-11	IFT, AM	
		MISCELLANEOUS	
⚠102	1-696-020-11	CABLE, FLAT	
405	8-848-137-11	PICK UP, OPTICAL KSS-210B	
* ANT1	1-501-537-11	ANTENNA, TELESCOPIC	
* CNP102	1-695-174-11	CONNECTOR 4P (CFD-20L)	
CNP110	1-695-562-11	CONNECTOR 6P (CFD-30L)	
*			
* CNP110	1-695-563-11	CONNECTOR 4P (CFD-20L)	
* CNP701	1-695-170-11	CONNECTOR 8P	
* CNP702	1-695-150-11	CONNECTOR 8P	
⚠CNP804	1-695-143-11	CONNECTOR 2P	
F902	1-532-286-11	FUSE, GLASS TUBE (2.5A/250V)	
HE901	1-543-558-11	ERASE HEAD (CFD-20L)	
HE901	3-379-192-01	ERASE HEAD ASSY (CFD-30L)	
HRP901	1-543-424-21	REC/PB HEAD (CFD-20L)	
HRP901	X-3365-055-1	REC/PB HEAD ASSY (CFD-30L)	
M701	X-2625-132-1	MOTOR GEAR ASSY (MB) (SLED)	
M702	X-2625-133-2	MOTOR ASSY, SPINDLE (TT CHASSIS ASSY (MB))	
M901	3-379-148-01	MOTOR ASSY (REEL/CAPSTAN) (CFD-20L)	
M901	3-379-149-01	MOTOR ASSY (REEL/CAPSTAN) (CFD-30L)	
S201	1-571-556-11	SWITCH, LEAF (MAIN) (CFD-30L)	
S201	1-572-394-11	SWITCH, LEAF (MAIN) (CFD-20L)	
S203	1-571-745-11	SWITCH, LEAF (FWD/RVS) (CFD-30L)	
SP101	1-544-743-11	SPEAKER R	
SP301	1-544-743-11	SPEAKER L	
⚠T901	1-450-985-11	TRANSFORMER, POWER (CFD-20L:AEP, G, IT/CFD-30L)	
⚠T901	1-450-993-11	TRANSFORMER, POWER (CFD-20L:UK)	

The components identified by mark ⚠ or dotted line with mark. ⚠ are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
		ACCESSORIES & PACKING MATERIALS	
⚠	1-558-032-11	CORD, POWER (CFD-20L:UK)	
⚠	1-575-131-11	CORD, POWER (CFD-20L:AEP, G, IT/CFD-30L)	
	3-376-544-01	LABEL, MODEL NUMBER (UK) (CFD-20L:UK)	
*	3-379-618-01	CUSHION (TOP)	
*	3-379-620-01	INDIVIDUAL CARTON (CFD-20L)	
*	3-379-624-01	INDIVIDUAL CARTON (CFD-30L)	
	3-754-849-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH, GERMAN)	
	3-754-849-41	MANUAL, INSTRUCTION (ENGLISH, ITALIAN, PORTUGUESE)	
*	3-379-685-01	CUSHION (BOTTOM)	
*	4-941-548-01	LABEL, CLASS 1	

HARDWARE LIST

#1	7-685-648-79	SCREW +P 3X12 TYPE2 NON-SLIT
#2	7-685-104-19	SCREW +P 2X6 TYPE2 NON-SLIT
#3	7-682-546-04	SCREW +PTT 3X5 (S)
#4	7-682-149-15	SCREW +P 3X10
#5	7-685-647-79	SCREW, TAPPING (CFD-20L)
#6	7-621-255-40	SCREW +P 2X6
#7	7-685-133-19	SCREW +P 2.6X6 TYPE2
#8	7-621-255-35	SCREW +BVTT 2X5 (S) (CFD-30L)
#9	7-628-253-90	SCREW +PS 2.6X4
#10	7-621-255-15	SCREW +P 2X3
#11	7-621-255-55	SCREW, TOTSU P 2X8 (CFD-20L)

The components identified by mark ⚠ or dotted line with mark. ⚠ are critical for safety. Replace only with part number specified.